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## **Kazakhstan - Republic of**

**Post:** Astana

### **Agricultural Development Program 2013-2020**

**Report Categories:**

Agricultural Situation

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**Report Highlights:**

On February 18, 2013, the Government of Kazakhstan approved a new 7-year plan for the development of agriculture in the country. The "Agricultural Development Program for 2013-2020" (or Agrobusiness-2020) replaced the previous "Agricultural Program for 2010-2014". The creation of the Customs Union, WTO accession negotiations, and other factors created the impetus for the development of the new program. The total funding envisioned for the life of the program is 3.1 trillion tenge (approximately \$20.5 billion). The goal of the Program is to increase the competitiveness of agricultural producers' through financial assistance, and improving access and marketing of agricultural products, services to farmers, improving government regulation in agriculture and government services in agriculture.

**General Information:**

On February 18, 2013, the Government of Kazakhstan approved a new 7-year plan for the development of agriculture in the country. The “Agricultural Development Program for 2013-2020” (or Agrobusiness-2020) replaced the previous “Agricultural Program for 2010-2014”. The creation of the Customs Union, WTO accession negotiations, and other factors created the impetus for the development of the new program. The total funding envisioned for the life of the program is 3.1 trillion tenge (approximately \$20.5 billion). The goal of the Program is to increase the competitiveness of agricultural producers’ through financial assistance, and improving access and marketing of agricultural products, services to farmers, improving government regulation in agriculture and government services in agriculture.

The original program in Russian can be found at the website of the Ministry of Agriculture of Kazakhstan - <http://mgov.kz/proekt-programmy-po-razvitiyu-apk-v-respubliki-kazahstan-na-2013-2020-gody/>. Below is an unofficial translation of this program.

Unofficial Translation of the Program for the Development of Agribusiness in the Republic of Kazakhstan in 2013 – 2020 “Agribusiness – 2020”

Approved by  
Resolution of the RK Government, # 151  
of February 18, 2013

**Program for the Development of Agribusiness in the Republic of Kazakhstan in 2013 – 2020 “Agribusiness – 2020”**

**1. Program Certificate**

Name	Program for the Development of Agribusiness in the Republic of Kazakhstan in 2013 – 2020 “Agribusiness – 2020”
Rationale for the Program development	Address of the Head of State to the Kazakhstan Nation dated December 14, 2012 "Strategy "Kazakhstan – 2050”: a New Policy of the Well-Established State”
Responsible agency	The RK Ministry of Agriculture (hereinafter, the RK MA), regional akimates (governments) and the Astana and Almaty city akimates (governments)
Goal	To create conditions for improving competitiveness of the agribusiness entities of the Republic of Kazakhstan (hereinafter, the RK)
Tasks	<ol style="list-style-type: none"> <li>1. Financial rehabilitation of the agribusiness entities.</li> <li>2. Improvement of economic availability of the goods, operations and services for the agribusiness entities: <ol style="list-style-type: none"> <li>1) improvement of economic availability of the goods, operations and services in plant growing;</li> </ol> </li> </ol>

- 2) improvement of physical availability of the grain storage services;
  - 3) improvement of economic availability of water for the agricultural commodity producers;
  - 4) improvement of economic availability of the goods, operations and services in livestock farming and commercial fish farming;
  - 5) improvement of economic availability of the goods, operations and services to obtain products of deep processing of agricultural raw materials;
  - 6) improvement of economic availability of financial services;
  - 7) improvement of availability of the goods, operations and services within the implementation of the priority investment projects;
  - 8) improvement of economic availability of educational services, results of agricultural science and consulting services.
3. Development of the state systems for supporting the agribusiness entities:
- 1) development of the phytosanitary safety system;
  - 2) development of the veterinary safety system.
4. Improvement of efficiency of the state agribusiness regulation systems:
- 1) improvement of efficiency of the agrochemical services of agriculture;
  - 2) development of the information support systems for the agribusiness entities;
  - 3) improvement of efficiency of the state crop variety testing;
  - 4) development of the system for providing government services to the agribusiness entities;
  - 5) development of the technical regulation system in agriculture;
  - 6) improvement of efficiency of the state control and surveillance system in agribusiness;
  - 7) creation of conditions for the development of production and circulation of organic agricultural produce.

Implementation timeframe      2013 – 2020

Target indicators      1) increase in the amount of state support to agriculture by 4.5 times through subsidizing the agribusiness entities in 2020;

2) prolongation of the debt burden of the agribusiness entities through refinancing and re-structuring of loans for not less than 8 years, with the total amount of 300 bln tenge;

- 3) increase in the amount of the non-government loans attracted in agribusiness through the measures for improvement of loan and leasing availability to 2 bln tenge in 2013 – 2020;
- 4) coefficient of threat of distribution of quarantine and highly dangerous pathogens in 2020: 0.88;
- 5) percent of the food products subject to monitoring and laboratory tests in 2020: 0.4 %
- 6) percent of government services transferred in an electronic format in 2015: 62%.

Funding sources and volumes	<p>The gross expenditures proposed in the republican and local budgets for the Program implementation in 2013-2020 will amount to 3,122.2 bln tenge, including:</p> <p>2013 – 339.7 bln tenge</p> <p>2014 – 466.0 bln tenge*</p> <p>2015 – 322.7 bln tenge*</p> <p>2016 – 340.7 bln tenge</p> <p>2017 – 383.5 bln tenge</p> <p>2018 – 406.9 bln tenge</p> <p>2019 – 414.3 bln tenge</p> <p>2020 – 448.4 bln tenge</p>
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\* – the amounts will be adjusted in accordance with the state budget for a respective fiscal year

## 2. Introduction

During the time of the RK independence, the impressive results have been achieved in the agribusiness sector of the country: continuous growth of production on the basis of market relations is taking place; labor productivity and efficiency is improving; updating of fixed assets and restoration of the sector infrastructure is underway; self-sustainability for the basic foods is accomplished: and, there is a considerable export growth of grain, oil crops and fishery products.

In 2011, the agriculture output made up 5.1% in the gross domestic product (hereinafter, GDP) of the country, labor productivity of the people involved in agriculture changed from 304.2 thousand tenge per person in 2005 to 498 thousand tenge in 2011, with the average annual growth rate of 9.3%; about 7.48 mln people or more than 45% of the overall Kazakhstan population lived in the countryside.

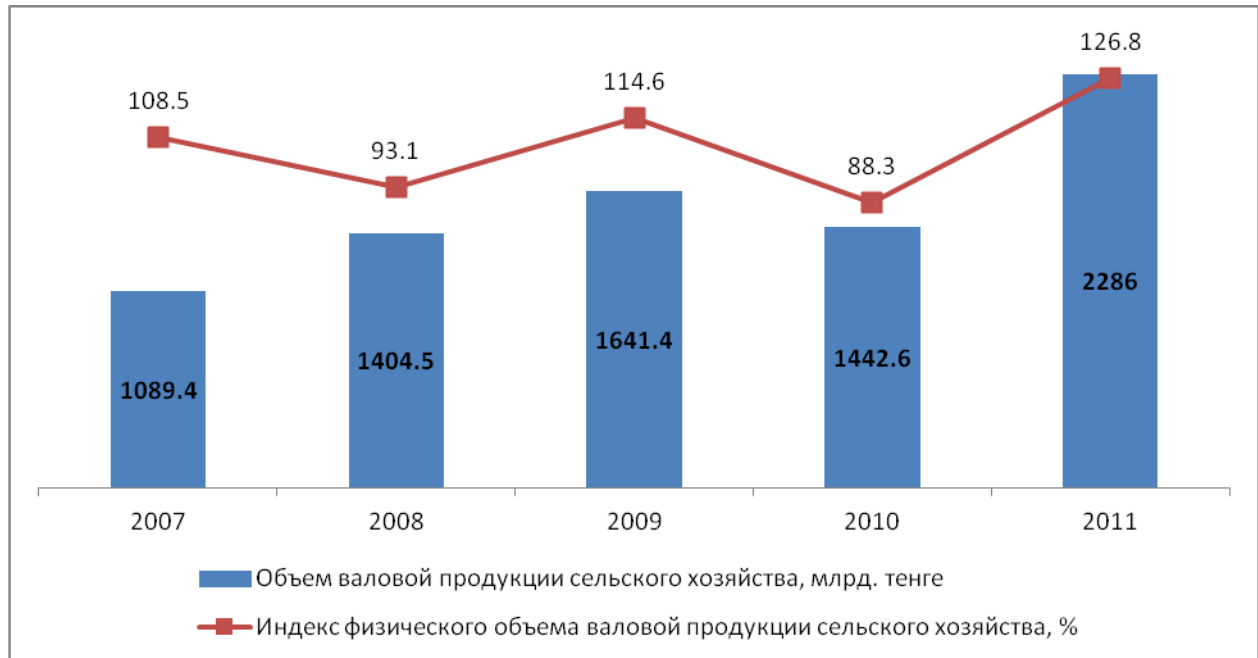
New trends are now evolving in the global agricultural economy and demography, real integration processes are developing in the region and global climate changes are occurring. Kazakhstan joined the Customs Union (hereinafter, the CU) and plans to join the World Trade Organization (hereinafter, the WTO) in the near future. However, low labor productivity in the sector, imperfection of the technologies used and small-scale production neither allow using the best practices of intensive agriculture, nor provide for the fullest use of the material, labor and other resources or for meeting the environmental requirements. These factors undermine competitiveness of the domestic agricultural sector, which can lead to domination of imported foreign products in the conditions of the WTO and the Customs Union, and squeeze-out the local producers from the markets. The population of the country is growing, with intensive increase in food consumption and change of the consumption structure in favor of better food products. The role of agriculture for the country's food security, growth of employment, and population and economic development of the republic was repeatedly emphasized by the Head of State, e.g. in the Address of the RK President N.A.Nazarbayev to the Kazakhstan Nation dated January 27, 2012, "Social and Economic Modernization, a Key Development Vector of Kazakhstan".

A new Program for the RK Agribusiness Development has been worked out in light of updated conditions in the foreign and domestic environment, and following the accession of Kazakhstan to the Customs Union and its forthcoming accession to the WTO, and in view of a need to use some new tools of state regulation to upgrade the sector.

### 3. Review of the current situation in agribusiness

The volumes of gross products in the RK agribusiness demonstrate a sustainable trend to growth: agricultural products from 1,089.4 bln tenge in 2007 to 2,286 bln tenge in 2011 and processed products from 490,8 bln tenge in 2007 to 828 bln tenge in 2011. Over the last 5 years, the average growth rate of gross output of agricultural products made up 20% and food products – 12.2%.

Fig. 1. Gross output of agricultural products



Source: The RK Agency for Statistics

Fig. 1 – KEY:

Blue – gross output of agricultural products, bln tenge

Red – Index of physical gross output of agricultural products, %

Fig. 2. Production output of food products



Source: The RK Agency for Statistics

Fig. 2 – KEY:

Blue – Production, bln tenge

Red – Index of physical output of food products, %

Over the last 5 years the gross output of key products made by processing amounted to over 650 bln tenge.

Table 1. Output of processed products, bln tenge

Indicator	2007	2008	2009	2010	2011
Production of food products	490.8	623.5	629.8	695.2	828.0
Processing and canning of meat and manufacture of meat products	50.2	59.7	69.7	77.6	102.8
Processing and canning of fish and shellfish	6.3	6.9	7.3	8.1	9.6
Processing and canning of fruits and vegetables	68.2	60.8	69.6	68.3	87.6
Production of vegetable and animal oils and fats	43.6	60.4	42.9	85.6	72.3
Production of dairy products	89.4	101.5	103.5	117.3	132.8
Production of flour milling industry products, starch and starch products	79.3	133.2	128.0	119.6	168.2
Production of bakery products and pastries	89.8	110.8	115.3	120.1	133.6
Production of other food products	57.0	82.5	86.2	90.9	109.0
Production of ready-to-use animal food	6.9	7.6	7.4	7.8	12.1

Source: The RK Agency for Statistics

The RK agriculture has integrated into the global food markets and been actively involved in the trade balance formation.

However, Kazakhstan has become dependent on import of multiple types of the agribusiness processed products. Thus, there are high levels of import dependence as regards processed products - horticultural, meat and milk products.

Table 2. Import share in the consumption of products in Kazakhstan from 2009 – 2011, thousand tons

Product	Import	Consumption	Import share in consumption, %
Average for 2009 –2011, thousand tons			
Fruits, grapes and products of their processing	573.6	678.3	84.57
Fish and fish products	67.2	88.7	75.72
Vegetable oil and oil-containing products	165.4	342.3	48.33
Meat and meat products	209.2	1,122.2	18.64
Milk and dairy products	870.6	5,756.8	15.12
Sunflower seeds	28.7	316.4	9.06
Vegetables, cucurbits crops and products of their processing	193.2	3,169.0	6.10
Potato and products of its processing	145.3	2,518.7	5.77
Grain processing products	43.8	1,989.8	2.20
Eggs and egg products, mln pcs.	33.4	3,565.5	0.94
Grain	110.0	11,973.7	0.92

Source: the Committee for Customs Control of the RK Ministry of Finance (including mutual trade); the RK Agency for Statistics; “The Analytical Center of Economic Policy in the Agribusiness,” LLC

In 2011, the number of people involved in agriculture accounted to 2196.1 thousand (26% of the overall number of the employed population), 604.8 thousand of them were hired employees (27.5% of those employed in the sector) and self-employed was 1591.3 thousand (72.5% of those employed in the sector).

In 2011, the area under crops in the RK was 21,083 thousand hectares. Wheat covered about 65.7% (13848.9 thousand ha) of the total crop area. In 2011, cereal crops covered 76.9% (16 219.4 thousand ha) of the total crop area. As of the beginning of 2012, the livestock population reached 5.7 mln heads of cattle, 18.1 mln sheep and goats, 1.6 mln horses, 1.2 mln hogs, 0.17 mln camels, and 32.9 mln poultry.

### 3.1. Target domestic and foreign markets for selling the RK agribusiness products

A number of opportunities for developing the markets are not used, e.g. the export markets in the Commonwealth of Independent States (hereinafter, the CIS) and traditional markets for Kazakhstan products. Market research revealed the following promising markets for products made in Kazakhstan.



In the wheat market of Central Asia, the European Union (hereinafter - the EU) and Afghanistan, Kazakhstan can cover more than 10 mln tons of products in grain equivalent (wheat, flour, products of advanced processing of wheat) by 2020, taking into account the fast growth of the population in the countries of Central Asia and Afghanistan. One of the key tasks is to keep the leading position in flour exports because it can shrink due to the importing country's focus on development of their own flour production facilities. Export of the products from deep processing of wheat (starches, gluten, etc.) will make 0.3 – 0.5 mln tons in raw equivalent based on the assumption of success of recently launched projects for advanced processing of wheat.

The Russian Federation (hereinafter – the RF) imports about 1 mln tons of apples, and Kazakhstan can provide up to 400,000 tons of this amount to be delivered in 2020. The domestic market of Kazakhstan in 2020 will reach about 600,000 tons of apples, which includes 400,000 tons of apple processing products in raw equivalent. The target is to achieve full self-sustainability with respect to these types of products and to regain the traditional markets for the Kazakhstan apples in the eastern part of the Russian Federation (RF). In 2020, the domestic market for vegetable products, including tomatoes, will reach about 3 mln tons, and the local producers can meet as much as 100% of the domestic demand. In 2020, exports of the vegetable products can achieve 300,000 tons, mostly to the Customs Union countries. According to the forecasts, the domestic production of canned vegetables will increase to 85,000 tons in 2020.

By 2020, the demand for corn in the domestic market will amount to about 1 mln tons in grain corn, mostly from the livestock sector, and will be supplied by the local production. Currently, Iran annually imports more than 3 mln tons of grain corn, and it is a promising potential market for this product.

In 2020, the domestic rapeseed market will reach about 500,000 tons and this demand will be satisfied by the local production. Also, there is a potential for almost a double expansion of the rapeseed exports to the EU countries, up to 70,000 tons.

In 2020, the domestic soybean market will amount to about 350,000 tons, and these requirements will be satisfied by the local production.

The potential annual RF market for beef imports is estimated as not less than 600,000 tons, and Kazakhstan can supply about 60,000 tons of chilled beef there in 2016. Also, by 2020 the domestic beef market will be at 500,000, 200,000 tons of mutton, more than 120,000 tons of horse meat, and these amounts will be provided by local production.

For mutton and horse meat, the focus should be made on the domestic market supplies, since large-scale exports to the markets of neighboring countries does not seem possible due to their unique demand.

According to the forecasts, the domestic market of the meat processing products by 2020 will include 115,000 tons of sausage products and more than 85,000 tons of other products; to meet these requirements, the local products can contribute approx. 100,000 tons of sausage and more than 60,000 tons of other products.

The RF market for imported cooled red fish (salmon) has a capacity of about 75,000 tons a year, and a potential share for Kazakhstan could reach 1,900 tons in 2020; export of up to 2,000 tons of sturgeon and black caviar to the RF, the EU and other countries is also possible. The domestic market for fish and fish products will reach approximately 196,000 tons, where the local production can cover about 84,000 tons.

The domestic market of dairy products in Kazakhstan will amount to 1.6 mln tons in milk equivalent in 2020, where the local products contribute about 1.5 mln tons in milk equivalent. The requirements for compound feed in the livestock sector will grow to 3 mln tons a year.

Kazakhstan has reached self-sustainability for rice, and there is a potential of increasing the rice cereal export to the CIS countries to 100,000 tons by 2020, provided that the key problems of the sector will be solved.

With regards to cotton production, the area suitable for its cultivation is limited by three districts in the Southern Kazakhstan Region, therefore, no considerable growth of cotton production or export seems realistic.

In the market of thin wool, the production might grow to 6-8,000 tons, and there is a possibility to increase the output of processing of the produced semi-coarse and coarse wool by several thousand tons a year.

### 3.2. Review of the current state regulation policy for the agribusiness development

Today, the state regulation policy for agribusiness development is implemented in the following forms:

- 1) providing the state support in various forms to the agribusiness entities, such as subsidies, government procurement, etc.;
- 2) using financial tools that support the upgrade of the basic production assets: fleet of agricultural machinery, equipment, and livestock population;
- 3) availability of the finance and loan tools for the agribusiness entities;
- 4) creating the necessary conditions to attract investments in agribusiness development projects;
- 5) support to the export of products;
- 6) provision of the state services pertaining to the veterinary and phyto-sanitary safety;
- 7) maintaining and development of the infrastructure necessary for the RK agribusiness development: transport, water, storage, processing, etc.;
- 8) development of the sectoral science and distribution of the agronomic knowledge;
- 9) control of the spending of the budgetary funds.

In Kazakhstan, mostly monetary and financial tools of support are dominating.

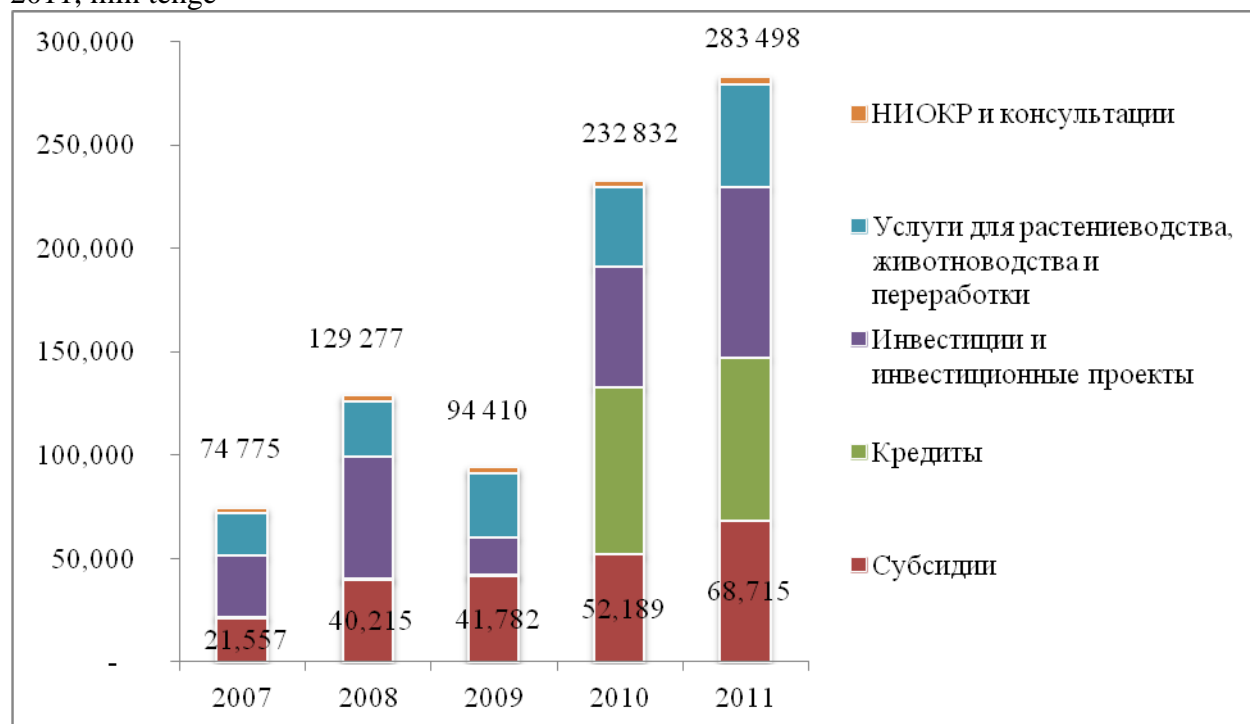
Table 3. Structure of the budgetary funds allocated to the agribusiness development in 2007-2011

#	Funding line	Proportion, %
1	Subsidies	28
2	Loans	20
3	Investments and investment projects	30
4	Services for plant growing, livestock farming and processing	20
5	R&D and consulting services	2
	Total	100

Source: the RK Ministry of Agriculture

In numerical terms, only in 2011 the total amount exceeded 283.5 bln tenge.

Fig. 3. Amounts of the budgetary funds allocated to the agribusiness development, 2007 – 2011, mln tenge



Source: the RK Ministry of Agriculture

Fig.3. KEY:

Orange: R&D and consulting services

Blue: Services for plant growing, livestock farming and processing

Purple: Investments and investment projects

Green: Loans

Red: Subsidies

Table 4. Types and amounts of subsidies in 2007 – 2011, mln tenge

Types of subsidies	Average for 2007 – 2011, mln tenge	Share, %	2011, mln tenge
Subsidies for the development of plant growing sector	22,820.5	50.8	30,011.4
Subsidies for the development of livestock farming sector	14,757.4	32.9	26,211.3
Subsidies for processing	3,140.8	7.0	5,000.0
Subsidies for export	2,555.8	5.7	5,000.0
Subsidies for irrigation water	1,201.1	2.7	1,248.7
Subsidies for insurance	360.7	0.8	1,203.3
Subsidies for the implementation of standards	55.5	0.1	40.0
TOTAL	44,891.7	100	68,714.6

Source: the RK Ministry of Agriculture

During the last 5 years, there was more than a 3-fold rise in the amount of subsidies for the agribusiness.

Fig. 4. Subsidies at the expense of the federal and local budgets by agribusiness sector, 2007 – 2011, mln tenge

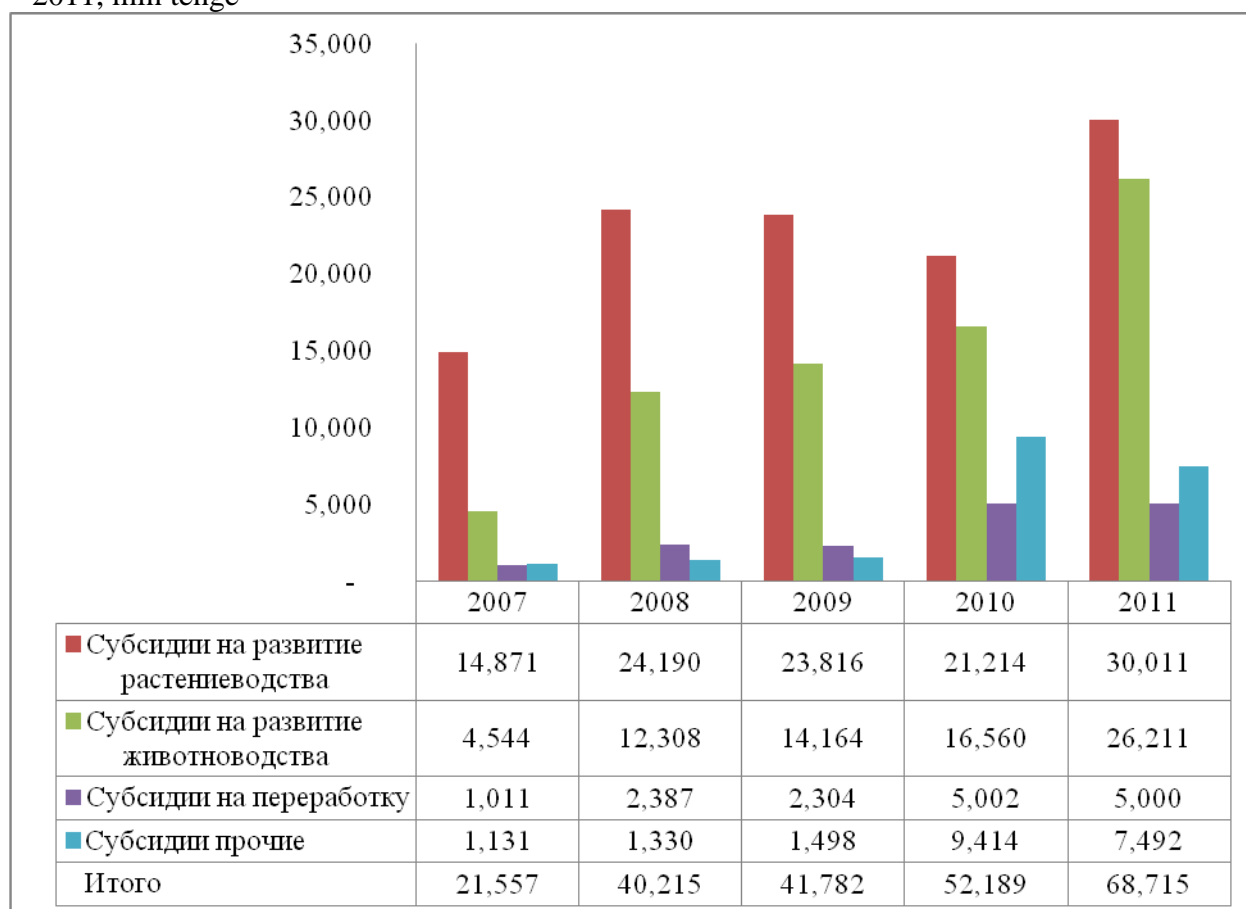


Fig. 4. KEY:

Red: Subsidies for the development of plant growing sector

Green: Subsidies for the development of livestock farming sector

Purple: Subsidies for processing

Blue: Other subsidies

Total

Source: the RK Ministry of Agriculture

Despite a relatively high level of the government support, the following drawbacks are noted:

- 1) some subsidies are not efficient due to a low sensitivity of the agricultural commodity producers to them (subsidies per ha in the production of grain, oil-bearing and other crops, feed per cattle head, etc.)
- 2) the administrative management of subsidies is associated with high costs;
- 3) the agricultural commodity producers receive subsidies with delays;
- 4) the mechanism of allocation of subsidies distorts the market prices;
- 5) the principle of providing target subsidies is not controlled sufficiently (subsidies for artificial insemination, seed production in plant growing sector, etc.).

### 3.3. Review of the issues in the priority agribusiness branches

#### 3.3.1. Review of the crop growing issues

Yield of the major crops is at a low level compared with the world yield indicators.

Fig. 5. Comparison of yield of the major agricultural crops, hundredweight/ha

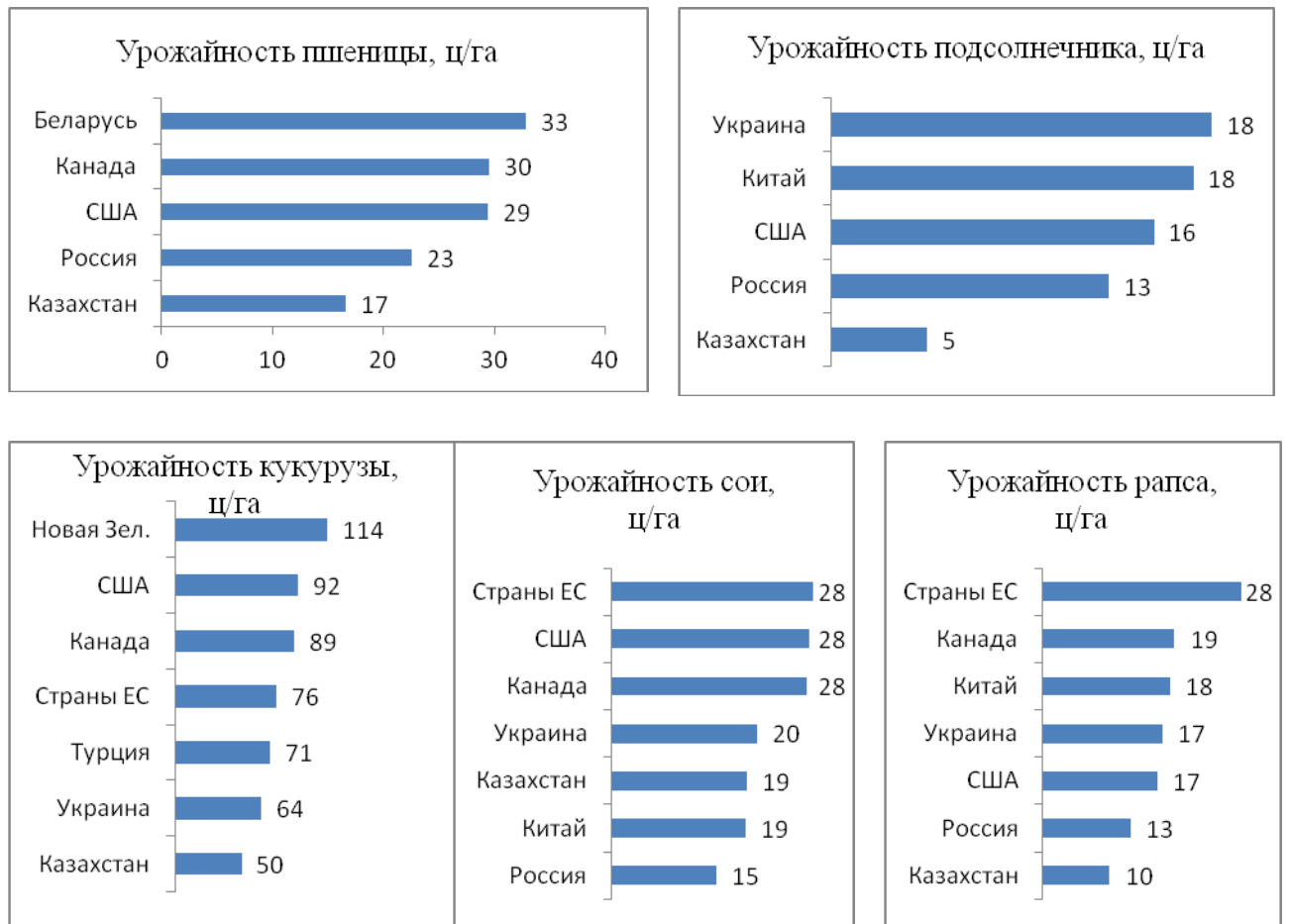


Fig. 5. KEY (translation below)

<i>Yield of wheat, hundredweight/ha</i>	<i>Yield of sunflowerseed, hundredweight/ha</i>
Belarus: 33	Ukraine: 18
Canada: 30	China: 18
USA: 29	USA: 16
Russia: 23	Russia: 13
Kazakhstan: 17	Kazakhstan: 5

<i>Yield of corn, hundredweight/ha</i>	<i>Yield of soybean, hundredweight/ha</i>	<i>Yield of rapeseed, hundredweight/ha</i>
New Zealand: 114	EU countries: 28	EU countries: 28
USA: 92	USA: 28	Canada: 19
Canada: 89	Canada: 28	China: 18
EU countries: 76	Ukraine: 20	Ukraine: 17
Turkey: 71	Kazakhstan: 19	USA: 17
Ukraine: 64	China: 19	Russia: 13
Kazakhstan: 50	Russia: 15	Kazakhstan: 10

Source: data for Kazakhstan – the RK Agency for Statistics (2011), data for foreign countries – FAO (2008)

The gross harvest of the major agricultural crops in 2011 reached a high level (in thousand tons): wheat – 22732.1, corn – 482, barley – 2593, rice – 347, soybean – 133, sunflower – 409, rapeseed – 149, cotton – 336, potatoes – 3076, vegetables – 2878, fodder corn – 1053, fodder crops (root crops, cucurbits, grain, silo crops (except corn) – 279, apples – 115.

The large wheat harvest in 2011 resulted in the crop overproduction which caused difficulties with its export; shortage of the bulk grain carriers and storage capacities. For oil crops, a shortage of storage capacities and a lack of agronomy knowledge was noted among the agricultural commodity producers. With regards to soybean and corn, the small scale of their production leads to low yields, and additionally there are processing problems. For fruit-and-vegetable production, the main constraining factors include; a shortage of irrigated land distributed among the small-size agricultural commodity producers, a lack of storehouses and a deficiency of raw materials for the processing industry. As a result, there is a significant dependence on imports of such products.

In 2011, the area under fodder crops was 2484.3 thousand ha, where the harvested area was 78 thousand ha of fodder corn, 197.2 thousand ha of annual grasses and 1780.1 thousand ha of perennial grasses. Yields of fodder crops are decreasing due to poor land management structure. The growing requirements of the livestock industry for high-quality compound feed are not fully met.

The level of phytosanitary safety in the RK is satisfactory, with a few cases of export bans on crop growing products from Kazakhstan.

### 3.3.2. Review of Livestock Farming Issues

Most of the livestock products are made in private farms owned by the population. The effects of this situation include low productivity, a failure to meet the growing consumption requirements at the domestic market, high production costs and low competitiveness, as well as the formation of import dependence. Thus, private farms of the population still play a key role in the production of all types of meat, and, as of January 1 2012, 76.7% heads of cattle, 67% - sheep and goats, 72.5% - hogs, 62.7% - horses and 40.9% of poultry were held in such facilities. The productivity indicators in livestock farming are several times lower than international levels.

Fig. 6. Indicators of livestock farming productivity



Fig. 6. Key (translation below):

Average live weight per cattle head, kg	Egg production capacity of laying hens:
USA: 570	Canada: 350
Canada: 520	Germany: 310
Germany: 500	Russia: 250
Kazakhstan: 301	Kazakhstan: 214

Milk yield per cow, tons/year	Wool clip per sheep, kg:
USA: 8.6	New Zealand: 6.2
Canada: 7.8	Australia: 5.6
Germany: 6.7	Uruguay: 4.3
Russia: 3.5	Russia: 2.9
Kazakhstan: 2.2	Kazakhstan: 2.5

Source: data for Kazakhstan – the RK Agency for Statistics (2011), data for foreign countries – FAO (2008)

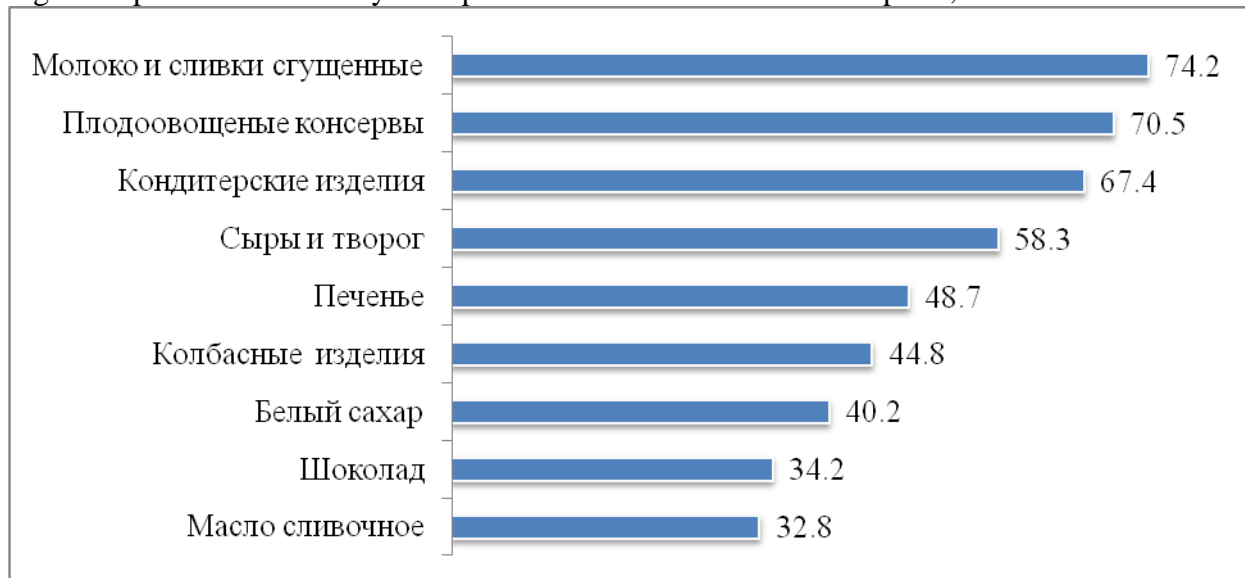
The major causes of poor productivity of livestock farming in Kazakhstan include a low proportion of breeding stock (e.g. for meat cattle – not above 2.5%), a deficiency of high-quality feedstuffs and inadequate animal holding conditions. Since most of the livestock population is concentrated in private farms, the livestock raising industry has intrinsic characteristics that affect productivity and quality; low genetic potential of the livestock, a lack of up-to-date animal holding, feeding and other technologies, and inadequate animal

health care. In addition, capabilities of the natural pastures are not used because there is no access to water sources for cattle watering.

### Review of issues related to processing of the agricultural products

The proportion of exports and imports of the key products made by processing demonstrates that Kazakhstan has a high level of import dependence for a number of products.

Fig. 7. Import ratio of the key food products in the domestic consumption, %



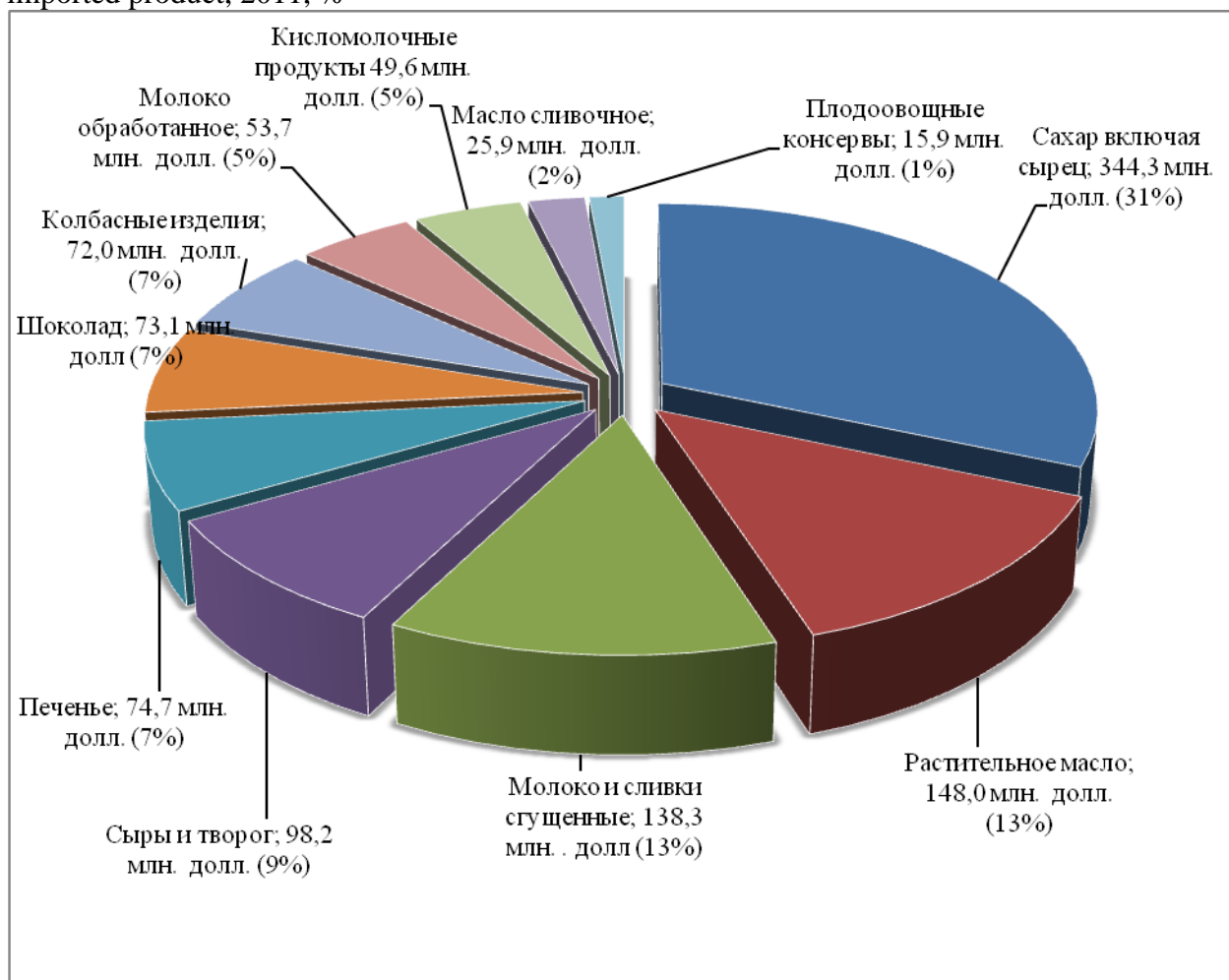
Source: calculations based on the data of the RK Agency for Statistics

Fig. 7. KEY (translation below)

Condensed milk and cream	74.2
Canned fruits and vegetables	70.5
Confectionary items	67.4
Cheese and curd	58.3
Cookies	48.7
Sausage items	44.8
White sugar	40.2
Chocolates	34.2
Cream butter	32.8



Fig. 8. Kazakhstan's dependence on imports of products made by processing: structure by imported product, 2011, %



Source: Customs Control Committee of the RK Ministry of Finance

Fig. 8. KEY (translation below):

Sugar, including raw sugar	US\$344.3M (31%)
Vegetable oil	US\$148.0M (13%)
Condensed milk and cream	US\$138.3M (13%)
Cheese and curds	US\$98.2M (9%)
Cookies	US\$74.7M (7%)
Chocolates	US\$73.1M (7%)
Sausage items	US\$72.0M (7%)
Processed milk	US\$53.7M (5%)
Fermented milk products	US\$49.6 (5%)
Cream butter	US\$25.9M (2%)
Canned vegetables and fruits	US\$15.9M (1%)

In 2011, the import volume of the main food products amounted to US \$1.093 billion. The largest proportion of imported goods is made up of such products as sugar, including raw sugar (31%), vegetable oil (13%), and condensed milk and cream (13%).

With regards to the structure of foodstuff production, including beverages, the leading roles are played by cereal-processing (31.1%), meat-processing (9.4%), dairy (10.2%), fish processing (3.2%), horticultural (2.2%), oil and fat production (2.6%), and beverage production (9.5%) industries.

The main factors impeding the development of the processing sector are highlighted below:

- 1) poor quality and deficiency of raw materials, as well as immature logistics in the procurement, transportation and storage of raw materials and, as a result, the underutilization of processing capacities;

- 2) underdeveloped sales and logistics infrastructure that facilitates the operations of multiple small-size players at the food market and the unjustified high prices of the products;

- 3) low competitiveness of the domestic raw and processed farm products at the domestic and foreign markets;

- 4) difficulties with the sales of national food products at the domestic market due to a considerable volume of imports.

Meanwhile, it is necessary to strengthen the government control over food safety and quality including laboratory tests for conformity to the requirements of the technical regulations, particularly, in respect to counterfeits (non-declared vegetable fats, soy-bean additives and other substitutes, preservatives, flavorings, dyes, etc.).

In turn, it will be necessary to conduct a metrological review of the operating technical regulations and to undertake measures for constructing and upgrading additional testing laboratories, strengthening their physical infrastructure and developing standards and methods of testing.

There is a need to consider whether it is possible to assign a certain status to non-governmental organizations that will allow them to take actions for determining counterfeited food products on the market.

The proportion of wool and hides processing is still very low. Basically, it is caused by a lack of demand for these commodities. The development of light and textile industry enterprises will facilitate growth of the sales of washed wool and hides.

The actions for market protection should be backed up with conceptual support. To achieve this, it will be necessary to introduce a large-scale campaign for promoting the consumption of domestic food products and increasing public trust of national products.

### 3.4. Review of the level of development of the agribusiness supporting sectors

#### Access to financing

Since 2001, the amount of loans issued in the economy has grown almost 18-fold. Loans issued to agriculture by the second-tier banks have also increased, however, at a small scale of 3.88 times during 2003 – 2011.

Fig. 9. Loans issued, as of the end of year, in 2001 – 2011, bln. US dollars



Source: RK National Bank

Fig. 9. KEY:

Dark blue: Bank loans issued to agriculture, US\$ bln

Light blue: Bank loans issued to economy, US\$ bln

Black line: Proportion of the bank loans issued to agriculture, %

The amount of loans issued, as of September 1, 2011, exceeded 545 bln tenge. The share of doubtful and bad loans in agriculture is much less than in the economy as a whole.

Fig. 10. Classification of the bank loans, as of January 1, 2012, %

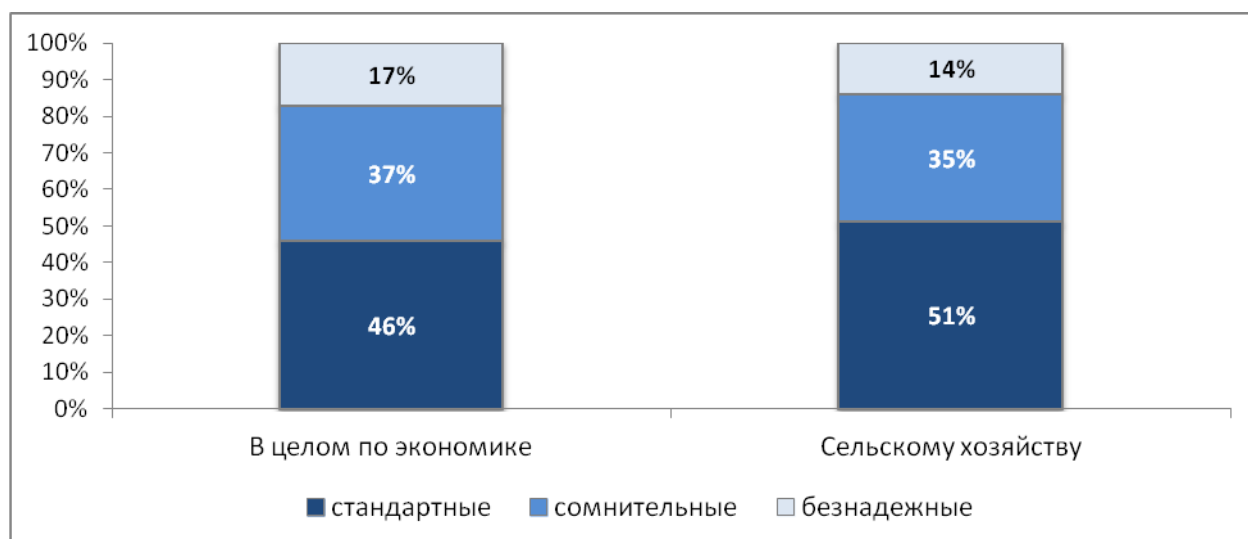


Fig. 7. Key

In the economy as a whole:

Standard – 46%

Doubtful – 37%

Bad - `17%

In agriculture:

Standard – 51%

Doubtful – 35%

Bad - `14%

Source: RK National Bank

As of January 1<sup>st</sup>, 2012, the loan portfolio of the second-tier banks and branch organizations of the Joint-Stock Company “National Managing Holding Company KazAgro” (hereinafter, JSC NUKh KazAgro) was 595 bln tenge for agribusiness. The doubtful and bad loans issued to the agricultural producers amounted to approx. 300 bln tenge as an effect of the following major factors:

- 1) use of expensive and short-term loan resources for upgrading and renovation of the motor vehicle and tractor fleet, mostly in 2006 – 2008;
- 2) financial recession of 2008;
- 3) grain export ban at the time of favorable prices (from April 15 to September 1, 2008), drop of hard currency revenue and partial loss of the traditional grain export markets;
- 4) a lack of the grain producer access to foreign markets in 2009 due to good harvest in Russia and Ukraine, which resulted in overstocking of the domestic market and dramatic reduction of prices;
- 5) devaluation of the tenge in 2009, which increased the hard currency accounts payable by 25%;
- 6) adverse drought weather conditions in 2010 and 2012 that resulted in low yield of the agricultural crops.

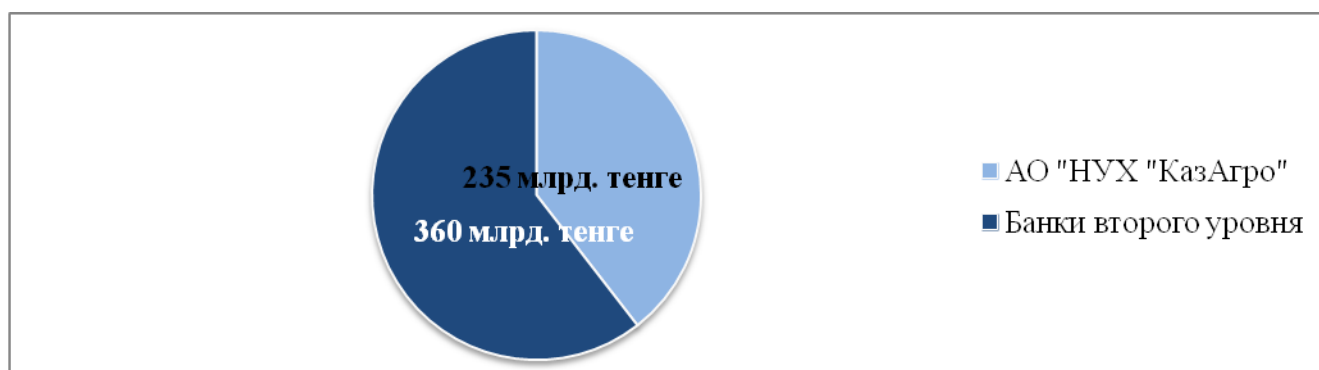
As a result, the agricultural enterprises faced a problem of paying a high commission rate for the previously adopted loan obligations and part of the loan principal.

To this end, it is necessary to take a one-time measure of financial rehabilitation of the agribusiness entities by way of re-structuring, refinancing and funding of the loans and projects, and also financing of the agricultural commodity producers for repayment of existing debts.

The total amount of funds allocated from the republican budget to the agribusiness development in 2007 – 2011 was 1.571.9 mln tenge, of which subsidies (not accounting for the water subsidies) made up 25.9% or 407 mln tenge. Also in the recent 5 years (2007 – 2011), 332.2 bln tenge was allocated to support agribusiness from the republican budget through the financial organizations integrated with the JSC NUKh KazAgro, 120 bln tenge from the National Fund.

A considerable share of loan resources is provided to agriculture by the JSC NUKh KazAgro that finances half of the investment projects implemented in the agribusiness sector.

Fig. 11. Loan portfolio, as of January 1, 2012, bln tenge



Source: RK National Bank, JSC NUKh KazAgro

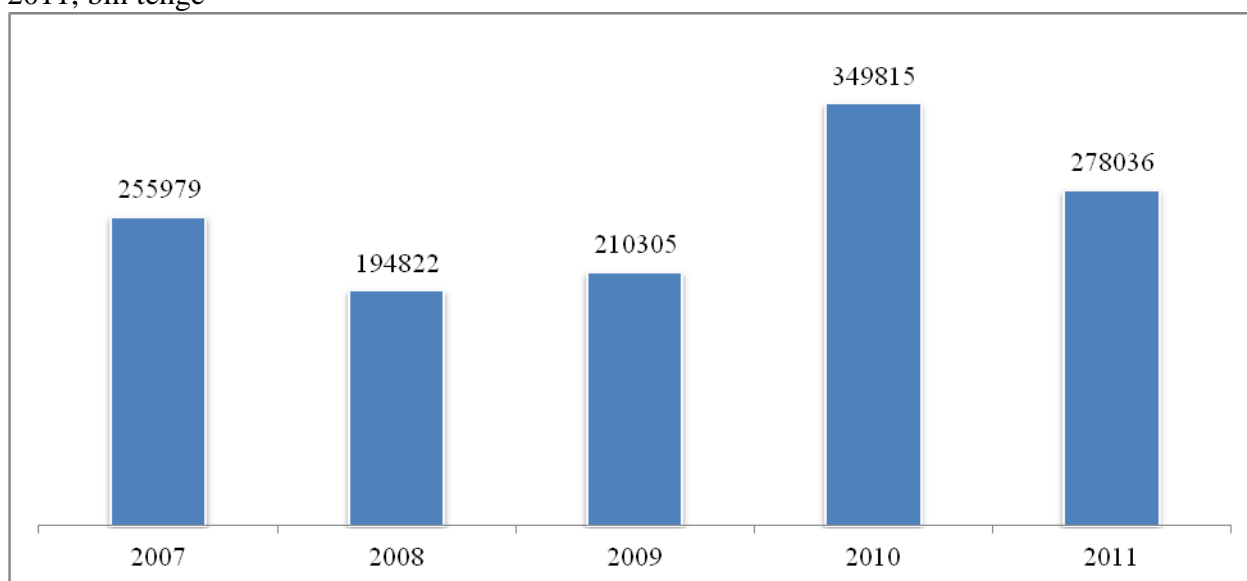
Fig. 11. KEY:

Light blue: JSC NUKh KazAgro

Dark blue: Second-tier banks

The second-tier bank loans issued to the agricultural produce processing industry amounted to 1,289 bln tenge in 2007 – 2011.

Fig.12. The second-tier bank loans issued to the agribusiness processing sector in 2007 – 2011, bln tenge



Source: RK National Bank

Over the last 5 years, the annual investment volumes in the fixed assets of agriculture almost doubled from 56 bln tenge in 2007 to 107.4 bln tenge in 2011. Within the last 5 years, the percent of investment in the fixed capital of agriculture remained the same, 1.7 % and 2.2 % of the total investment in the RK economy in 2007 and 2011, respectively, while the share of these products in the country GDP made up more than 5%. Therefore, comparative investment appeal of the RK agribusiness has not grown during these years vs. other sectors. To improve an investment appeal of the agricultural sector, a number of financial tools should be introduced to reduce the price of loans for financing the agribusiness projects. In addition, tools should be introduced to reduce risks for the lenders and investors.

Logistics services

Along with the growth of the average yield of grain crops, a shortage of the transportation and storage capacities increases, and difficulties arise in wheat export to the traditional commodity markets. Shortage of the bulk grain carriers is estimated as 3000 vehicles, shortage of the storage capacities for grain is about 2 million tons, for oil crops about 200 thousand tons, and for fruit-and-vegetables about 200 thousand tons.

#### Use of land resources

There is a certain imbalance in the matters of land use and soil fertility conservation. A considerable amount of the agricultural land leased-out for a long-term is not used for the designated purpose or used to a minimum degree. The tenants of the agricultural land do not apply sufficiently effective measures for soil fertility conservation and prevention of wind and water erosion. According to the Committee for Management of Land Resources of the RK Ministry of Regional Development, only 15% of the agricultural land in RK is used. Today, about 125 mln hectares of pastures are neither irrigated, nor used. Also, more than 20 mln hectares of pastures adjacent to residential areas are classified as degraded because of their underuse.

For soil conservation and sustainable agricultural conditions, efforts should be carried out to maintain efficient use of mineral fertilizers and, conduct regular monitoring of soil fertility. Moreover, the system of taxation of the agribusiness entities should be improved for facilitating the rational use of land, nature and other resources.

#### Veterinary Safety

Unstable epizootic situations are a crucial threat for the agribusiness industry. The boundary areas are the most disease-susceptible regions from where the infections can spread to other parts of the country. In 2011, 227 spots of acute contagious diseases were reported and, as a result, the export of livestock products was prohibited from a number of Kazakhstan regions.

Fig. 13. Cases of livestock diseases in the RK, 2011.



Source: the Republican State Enterprise “Republican Veterinary Laboratory”

Fig. 13. KEY

Bovine brucellosis	75038
Bovine leukemia	58046
Brucellosis – small ruminants	32705
Infectious ovine epididymitis in rams	368
Brucellosis - Carnivora	122
Brucellosis – swine	111
Equine rhinopneumonia	54
Leptospirosis – cattle	38
Brucellosis – camels	27
Chlamydiosis in cattle/small ruminants	19
Brucellosis – horses	17
Canine distemper	13

The most common diseases are bovine and small ruminant brucellosis and bovine leukemia. In 2011, positive results for brucellosis were reported in 75,038 cattle samples and 32,705 samples from small ruminants and there were 58,046 positive leukemia tests. The data showed that the levels of these diseases reduced since 2010 by 14%, 15% and 10%, respectively.

There are a number of factors affecting the development of the veterinary and food safety system. Most of the livestock is held in private backyards which is a serious obstacle for veterinary control. Thus far, the information systems do not provide for the traceability of products “from farm to fork” and are not capable of conducting epizootic surveillance or monitoring or predicting outbreaks. The procedure of livestock identification is complicated by such issues, as decentralized procurement, duplication, loss of tags, and non-reimbursement of tag costs by the owners. In addition the electronic identification system is not accessible for the rural settlements where Internet connection is not available. There is a lack of strict control over veterinary drugs and diagnostic kits. The current infrastructure does not support an appropriate level of veterinary safety; and the veterinary institutions (state-owned public enterprises, regional and district veterinary laboratories) do not have all the necessary equipment.

#### Insurance

Currently, despite the available legislative framework in the area of mandatory insurance in the crops growing industry, the efficiency of this institute is not sufficient. Insurance premium amounts do not cover the level of actual losses or administration costs, though the state participates in making payments.

Fig.14. Trends in insurance premiums and payments at the market of insurance of crops growing sector, tenge



Source: Joint Stock Company “The Fund for Financial Support to Agriculture”

Fig. 14. KEY:

Dark blue: Insurance premiums

Light blue: Insurance payments

However, there is a pressing need for the development and sustainable functioning of the insurance system in this area. Thus, it will be necessary to find out whether it will require improvements.

### Agricultural Science

In 2007, a Joint Stock Company “KazAgroInnovation,” which embraced all target research institutions and agricultural experimental stations was established within the structure of the RK Ministry of Agriculture in order to devise a modern agricultural research management system.

The total number of employees within the “KazAgroInnovation” network is above 5,600 people and about 1,100 (20%) of them are researchers. More than 60% of the researchers have scientific degrees and the average age of the research staff is 46.7 years. An impressive physical infrastructure is available which includes over 280 thousand hectares of land’ buildings and structures with the total area above 900 thousand sq. m, and about 4,500 pieces of research equipment and agricultural machinery.

Over the last three years, the average annual amount of funding was 3.3 billion tenge that accounted for 0.17-0.25% of the gross product of the agricultural sector.

Research activities cover all the key agricultural regions of the Republic of Kazakhstan and branches of the national agribusiness.

Since 2009, an educational system for knowledge dissemination; agricultural technology commercialization office; republican center for pedigree animal breeding “Asyl-Tulik”; and, a publishing house “Bastau” have been in operations within the Joint Stock Company “KazAgroInnovation.”

Every year, the scope of applications of domestic R&D results is expanding. For example, in 2011 the areas where moisture resource saving technologies were used in crop farming reached 11.7 million hectares (a 2.3-fold increase vs. 2007) and the areas used for growing domestic wheat varieties reached 6.8 million hectares (42% of the wheat planted area). Cattle populations involved in the research process amounted to 760,000 head.



At the same time, there are multiple problems of systemic nature that impede further development of agricultural science as a factor that could increase agribusiness productivity and competitiveness. The most important of them are outlined below:

- 1) insufficient funding – a multifold difference in the amount of funds vs. the leading countries-exporters of agricultural products;
- 2) a deficiency of highly skilled young staff – researchers, supporting and technical personnel;
- 3) physically outdated and obsolete infrastructure – the proportion of research equipment operated for over 20 years accounts for 28%, agricultural machinery and vehicles – 41% and buildings operated without capital repair for more than 20 years – 95%;
- 4) immature instruments for the application of R&D results and the interaction with the business entities;
- 5) insufficient integration of the domestic agricultural science into the global research community.

In this context, there is a need for reforming agricultural science to make educational and consulting services more accessible for the producers of agricultural commodities.

#### Agricultural machinery fleet

Today, 80% of the agricultural machinery fleet in the RK is worn out, despite the growth of the absolute number of machines and equipment. Currently, an average age of more than 80% of the grain combine harvesters and tractors is 13 – 14 years, while their standard operation life is 8 – 10 years; 71% of the grain combine harvesters, 93% of tractors and 95% of seeders should be removed from operation. The existing fleet of agricultural machinery is generally worn-out at 87%. The average machinery retirement factor in 2004 – 2009 was positive (0.7% per year).

Table 5. Availability of the basic types of agricultural machines in the RK (at the beginning of year), pieces

Types of machines	2006	2007	2008	2009	2010	2011
Tractors	132,676	134,799	137,213	156,037	156,656	155,580
Grain combine harvesters	44,339	44,621	45,454	48,032	49,503	46,997
Seeders	87,625	90,362	90,743	91,599	90,960	77,187
Sowing systems	771	1,126	1,520	1,995	2,408	2,651
Reapers	15,458	15,575	15,243	15,439	15,200	15,233

Source: RK Ministry of Agriculture

In the recent five years, agricultural commodity producers have been buying more efficient equipment produced by the world leading manufacturers. As a result, specific power per unit land of the agricultural production has increased by 19.5% compared with 2002 and reached 165 horse powers or 123 kW per 100 hectares of plough land. For comparison, in Russia, specific power per unit land of the agricultural production is 259 kW, in Germany, Holland, Italy 350 kW, in France 364 kW, in the UK 404 kW, and in the USA 405 kW. However, the high-efficiency Horsch, John-Deere, Case, and Morris seeders, contributing 4.9% to the total number of seeders, are used for seeding on 35.2% of the areas under crops.

Accession of the Republic of Kazakhstan to the Customs Union considerably increased the customs duties for the agricultural machinery imported from outside of the Customs Union, while the equipment for no-till and mini-till technologies, required for the Kazakhstan conditions, is not manufactured within the Customs Union in the necessary quantity and

range. Strict requirements to the assembly location in the RK as well as insufficiently stable markets impede the establishing of assembly facilities in the PK.

To update and expand the fleet of agricultural machinery, it is necessary to continue the government support using the leasing tools and mechanism of subsidizing the leasing payments.

#### Agricultural chemistry

According to the RK Agency for Statistics, 87,400 tons of mineral fertilizers are used annually in Kazakhstan, which estimates the demand for fertilizers at 1.8 mln tons a year. At the same time, according to the data of the regional territorial inspections of the State Inspection Committee of the RK Ministry of Agriculture, the amount of herbicides applied, 8 to 10 mln liters, is insufficient compared with the demand of 30 mln liters a year.

Production of nitrogen and phosphorus fertilizers in Kazakhstan equals the consumption; however, the greater part of fertilizers is exported, while the domestic demand is satisfied by imports. Potassium fertilizers used in Kazakhstan today are fully imported.

Biological fertilizers are not used in a sufficient amount.

Kazakhstan annually produces about 3.5 thousand tons of pesticides, however, it imports about 17,500 tons. The annual domestic pesticide market is about 21,000 tons and tends to grow by 10 to 12% each year. The pesticide formulations are made by about six local enterprises in the country.

To address the existing problems, the government support to reduce cost of the mineral fertilizers as well as expenses of herbicidal treatment of crops should continue.

### 3.5. Review of positive foreign experience in addressing the existing issues that can be adapted for the RK conditions

The world population is increasing along with the intensive growth of food consumption. At the same time, the shortage of water, land, fuel and energy resources is becoming more pronounced, which will lead to an increase in food prices. By 2020, the world population will reach 7.6 bln people, i.e. it will grow by 600 mln since 2011. The structure of food consumption will change: the share of consumption of meat, milk and dairy products, fish, vegetables and fruit will rise. The primary challenge facing agriculture throughout the world is an increase in production by 70% by 2050. Meeting this goal is impeded due to the slowdown in the growth and yield of agricultural crops and limited water resources.

Additionally, the process of desertification and degradation of farmlands is ongoing.

According to the UN Environment Program, one third of arable lands are degrading which will have a negative effect on the life of more than 1 bln people in more than 100 countries.

In 1998, at the OECD Agriculture Ministerial Meeting, representatives of the advanced countries that are members of the Organization of Economic Cooperation and Development (hereinafter, the OECD) reached an agreement on the joint state policy principles in the agricultural sector. Which required the following characteristics of the state policy:

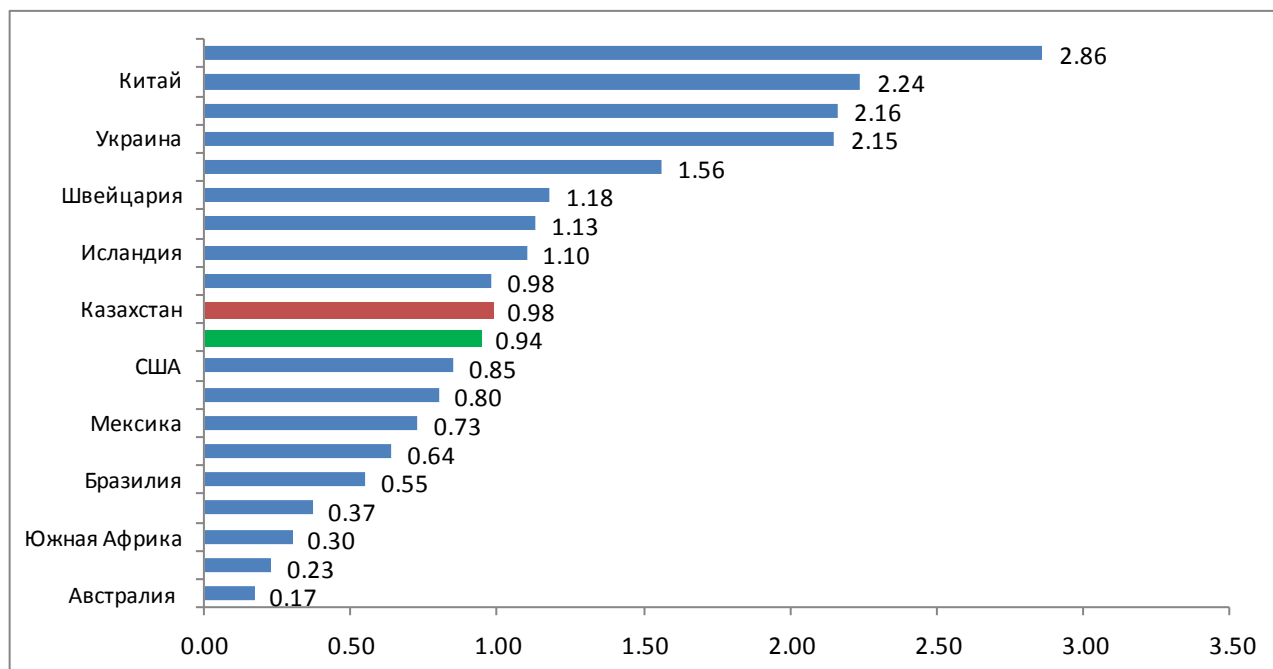
- 1) transparency: to have clear objectives, costs, benefits and beneficiaries;
- 2) effectiveness: clearly defined results;
- 3) optimality: the costs should be the minimum necessary costs for achievement of the clearly defined results;
- 4) flexibility: to reflect a variety of the situations arising in agriculture, to be ready to respond to the changes in the objectives and priorities, and also to be applicable throughout the time necessary for achieving the planned results;
- 5) equivalence: to take into consideration the effects of the support distribution between the sectors, farmers and regions.

The OECD believes that the state policy of agriculture support should consider the fast-growing world demand for food, sharp price variation and variability of the global markets. Recommendations of this organization made from the results of recent research (2011) and analysis of statistics of the OECD countries as well as Brazil, China, Russia, Ukraine and South Africa, suggest that in development of agricultural policy stress should be shifted from the state subsidies to investment in order to improve productivity and rational use of resources.

Best practices of agriculture support in different countries of the world showed that most countries use subsidizing as a key tool of support for agricultural production. However, the leading agricultural exporter countries (Australia, New Zealand, Argentina, Brazil, etc.) do not support direct subsidizing of the producers.

The following basic forms of state regulation of the agricultural sector can be seen in the systems of subsidizing used in the advanced countries: price support (USA), revenue support through payments per hectare and livestock (EU countries), revenue support through payments on the basis of historic level of revenue (Canada), and preferential lending regimes (Brazil). In terms of administration, the simplest type of subsidizing is payments per hectare or livestock. In terms of the level of support of the agricultural sector of the economy, Kazakhstan is at a medium level in relative indicators. Total support of agriculture in this case includes both payments to the agricultural entities from the state budget and indirect measures of support (for example, tariff protection).

Fig. 15. The overall support provided to agriculture as a share of the country GDP, average for 2008 – 2010, %



Source: PSE/CSE OECD Database; data for Kazakhstan are preliminary; final data will be published in the OECD Review of Agricultural Policies in Kazakhstan, 2013. OECD, Paris

Fig. 15. KEY

China – 2.24

Ukraine – 2.15  
 Switzerland – 1.18  
 Iceland – 1.10  
 Kazakhstan – 0.98  
 USA – 0.85  
 Mexico – 0.73  
 Brazil – 0.55  
 South Africa – 0.30  
 Australia- 0.17

Today, trends to abandon direct measures of state support to agriculture are dominating within the WTO. The Cairns Group countries (Australia, Argentina, New Zealand, Canada and others) are becoming more and more significant in the WTO and the world agricultural food markets – these are the countries with a minimum level of direct subsidies in agriculture, and they develop the sector through improvement of competitiveness and production efficiency. Experience of the Cairns Group countries that are not using direct support of agricultural production shows higher growth of the combined factor productivity after the subsidy withdrawal<sup>1</sup>.

In the context of Kazakhstan, it is a proof that every country develops its own system of supporting agricultural production, and what is most important is that the support should motivate the producers, improve the yield of land and livestock, and stimulate exports. Analysis of the modern trends in development of the agriculturally leading countries showed that further development of agribusiness in Kazakhstan should be aimed at competitiveness of agricultural products through improvement of efficiency of the state support and creation of equal favorable conditions for the agribusiness development.

Besides, a separate line in agriculture, production of organic produce, has developed in advanced countries. Development of the organic produce market worldwide shows a fairly high growth rate, despite higher and stable prices in comparison with traditional agricultural produce. Domestic organic products will be able to compete with the foreign goods upon introduction of an organic produce system recognized in the advanced countries of the world.

### 3.6 SWOT (Strengths, Weaknesses, Opportunities and Threats) Analysis in Agribusiness

Currently, the development of agribusiness in the Republic of Kazakhstan has the following strengths: the state-provided support to the development programs and the extensive experience gained in the application of agrarian technologies. The weaknesses in the agribusiness development include a deficiency of storage and logistics capacities, low rate of applicability of R&D results, poor levels of veterinary safety and other development-related misbalances.

Table 6. SWOT Analysis for Agribusiness

<b>Strengths:</b>	<b>Weaknesses:</b>
<ul style="list-style-type: none"> <li>- sustainable growth of the gross agribusiness product;</li> <li>- Kazakhstan is a world leader in the production of wheat and wheat flour;</li> </ul>	<ul style="list-style-type: none"> <li>- low livestock productivity;</li> <li>- low yield of top importance crops;</li> <li>- low workforce productivity;</li> <li>- low profitability of entrepreneurship</li> </ul>

<sup>1</sup>“Distortions to Agricultural Incentives in Australia and New Zealand” K. Anderson et al. WorldBank 2007

<ul style="list-style-type: none"> <li>- in Kazakhstan, agribusiness receives a considerable support from the state;</li> <li>- availability of land and water resources;</li> <li>- high production potential and capabilities for exporting organic products.</li> </ul>	<p>entities;</p> <ul style="list-style-type: none"> <li>- low R&amp;D applicability</li> <li>- low rate of dissemination of up-to-date knowledge about agricultural technologies;</li> <li>- low effectiveness of the funding and insurance system.</li> </ul>
<p><b>Opportunities:</b></p> <ul style="list-style-type: none"> <li>- the expansion of import substitution and the exploitation of export potential in multiple agribusiness fields;</li> <li>- the facilitation of an effective state support for the industry;</li> <li>- the development of commercial fish farming; export of cattle meat; production of apples, oil-bearing plants and other types of products.</li> </ul>	<p><b>Threats and risks:</b></p> <ul style="list-style-type: none"> <li>- macroeconomic risks posed by the deterioration of the domestic and international market environment with regards to world prices on agricultural products;</li> <li>- higher competition rates in international markets for multiple types of products due to the accession to the WTO;</li> <li>- unfavorable changes in the natural-and-climatic conditions, both short- and long-term (the global climate warming followed by an expansion of desert and semi-desert areas; increasing deficiency of water resources; and, unstable weather conditions, etc.);</li> <li>- critical depreciation of the infrastructure used for transporting products to the target market outlets and an associated increase in delivery costs;</li> <li>- the distribution of animal and plant diseases and environmental pollution; the spread of parasitic species of plants, animals, fishes and insects that will reduce the availability of land water and other resources and affect productivity of the sector, as a whole, and may bring down the export potential of agribusiness in the RK.</li> <li>- exhaustion of the land, water and biological resources, as well the genetic potential of animals, plants and fishes as a result of focusing on the profit in a short-term perspective; deficiency of funding; and non-compliance with the science-based guidelines on resource management;</li> <li>- a risk of ineffective industry regulation by the state that may cause an increase in transaction costs of the producers of agricultural commodities; inefficient use of the government funds allocated to industry development; the distortion of market signals; and mismatches in the structure of manufacturing and processing of products.</li> </ul>

Source: Review of data for various industries

#### 4. Key Conclusions

For setting targets for the development of the RK agribusiness, it is necessary to give consideration to the following key trends that have shaped in the outside environment and the current situation in the RK agribusiness:

- 1) opportunities of the extensive development have been exhausted;
- 2) there is a need to increase yielding capacity and to upgrade technologies;
- 3) the recovery period of development is finishing with the achievement of the same quantitative indicators as in the pre-reform period of 1990-s, but in multiple subsectors they resign on a new, qualitatively different, market-based environment.
- 4) the upcoming accession to the WTO and activities within the Customs Union (CU), active development of international trade, transport and communication tools, scale-up of product standards, changes in consumer preferences, and the reduction of government support, bring to the forefront the requirements to competitiveness and such directly correlating issues as workforce productivity, cost effectiveness of agricultural commodity producers, quality of products and their marketing;
- 5) multiple systematic measures are required with regards to the government support to agribusiness branches for facilitating financial rehabilitation of the industry and increasing availability of the products, operations and services for the producers of agricultural commodities, including subsidy assistance in crops and livestock raising, as well as the development of state support to the agribusiness entities in such areas as veterinary and phytosanitary safety and water supply, improvement of the effectiveness of state regulation in the sphere of land matters, technical regulation, state control and surveillance.

To achieve the program targets, the RK Ministry of Agriculture and its subordinating organizations have to focus their efforts on the following areas:

The strategy in the crop growing sector primarily involves production diversification, increase in the output of agricultural produce through transition to the scientifically grounded moisture-and-resource efficient processes of crop cultivation, supporting the sustainable use of the agricultural land, and involvement of the new and presently unused land in agriculture. These strategies will require improvement of the taxation system. Besides, it is necessary to bring proposals to the interested state bodies on the optimum taxation schemes for the agribusiness entities taking into account the compliance with the concept of overall declaration of income and WTO requirements; tax size commensurable to the size of income, introduction of the tax accounting irrespective of the organizational-legal form, simplification of the tax accounting, full coverage of the taxpayers including personal subsidiary farming, elimination of the possibility to create shadow schemes, social security guarantees for the hired workers, and elimination of significant increases in the tax burden.

Special attention should be given to development of the grain production infrastructure as grain crops make the greatest share in the agricultural produce export structure. The problem of the grain elevator and grain carrier shortage should be addressed through construction and expansion of the grain treatment and storage facilities, and also grain transportation.

In the livestock sector, efforts for improvement of the export potential of cattle meat and motivation of the agricultural commodity producers to development of meat production should continue. It is necessary to maintain the work for development of the breeding stock and improvement of the genetic potential of the livestock and poultry, also through importing breeding animals for further reproduction. For development of the traditional livestock branches, a package of measures should be implemented to motivate distant-pasture livestock rearing, including sheep production. It is also necessary to take measures for development of fodder production and restoration and irrigation of the degraded pasture land. Efforts for establishing small- and medium-size farms and family farms should be strengthened.

For enhancement of the commercial production of fish as a priority line of the fishery development, measures for state support of the domestic aquaculture producers should be taken.

In the agricultural produce processing, it is still important to provide technical and technological re-equipment of the production facilities, transfer to the international quality standards to improve quality of the domestic products, broaden the range of foodstuffs, and thus create equal conditions for competition with the major trading partners in the Customs Union. Meanwhile, it is necessary to update the strategic documents of the state bodies pertaining to the technical regulation, trade, protection of competition, information, customs and border services. To increase the domestic market and broaden the foreign markets for the products of the domestic food and processing industries, measures should be taken in cooperation with the interested authorized bodies to protect the domestic market from latent dumping of imported goods; to strengthen control over compliance with the legislation pertaining to the technical regulation; to assure compliance with the requirements of the legislation regarding the priority procurement of domestic foodstuffs; to improve the mechanism of access of the domestic products to the counters of the trading chains; to develop the trade logistic infrastructure; to promote the domestic products at the foreign markets; to develop the adjacent sectors; to conduct the public awareness-raising work. It is necessary to create conditions for the promotion of making organic products through implementation of an international certification system.

There is a need to implement measures for further saturation of the market with the food of domestic production through development of logistics of the product storage and delivery to the consumers, construction of the procurement, processing and storage points to be done by cooperation of the agricultural commodity producers. Therefore, policy of the RK Ministry of Agriculture should be aimed at supporting commodity production for the agribusiness entities with high labor productivity, that will allow intensification and growth of domestic output. Special consideration should be given to the development of the veterinary and phytosanitary safety system. The anticipated accession to the WTO requires that the manufacturers of agricultural commodities supply high-quality and safe products complying with the international food safety standards. Thus, under cooperation with international organizations it will be necessary to elaborate on the issue of improving legislative framework, revise animal disease control strategy, set up a broad network of laboratories with an integrated information management system for disease control, surveillance and monitoring. It is necessary to ensure that government veterinary organizations operate at the level of villages. With regards to phytosanitary areas, a number of actions should be undertaken to implement up-to-date safe methods of control of highly dangerous pathogens.

To facilitate introduction of advanced technologies and increase output of the domestic agricultural production, along with the existing support measures, gradual transfer from direct subsidizing of particular crops to the support through preferential financing (subsidizing the interest rate for loans and leasing, introduction of a system of guarantees and a system of insurance of loans of the agricultural commodity producers before the financial organizations) as well as investment subsidizing for the project implementation should be provided. To avoid financial instability of the agricultural enterprises and prevent reduction of their number, financial rehabilitation of these enterprises should be carried out. Industrial and innovative development of the agribusiness should be implemented through the hi-tech investment projects, and also through the principles of integrated management of the water resources.

To improve efficiency of the state support, it is necessary to optimize the system of subsidizing. To provide equal conditions for the domestic agricultural commodity producers in the light of accession to the WTO as well as membership in the Customs Union and

Common Economic Space, the level of state support during the planned period should be brought up to the appropriate agreed indicators under the integration processes.

#### 4. Goal, tasks, target indicators and deliverables of the Program

The key goal of the Program is to create conditions for increasing competitive performance of the agribusiness entities in the RK.

To achieve the Program goal, efforts will be made in the following four areas:

1. Financial rehabilitation.
2. Improvement of availability of the products, operations and services for the agribusiness entities.
3. The development of state systems providing support to the agribusiness entities.
4. Improvement of efficiency of the systems of state regulation of agribusiness.

Target indicators of the Program:

1. increase in the amount of state support to the agriculture by 4.5 times through subsidizing the agribusiness entities in 2020;
2. prolongation of the debt burden of the agribusiness entities through refinancing and re-structuring of loans for not less than 8 years, with the total amount of 300 bln tenge;
3. increase in the amount of the non-government loans attracted in agribusiness through the measures for improvement of loan and leasing availability to 2 bln. tenge in 2013 – 2020;
4. coefficient of threat of distribution of quarantine and highly dangerous pathogens in 2020: 0.88;
5. percent of the food products subject to the monitoring laboratory tests in 2020: 0.4 %
6. percent of the government services transferred in an electronic format in 2015: 62%.

##### 4.1. Financial rehabilitation

To improve solvency, reduce the loan burden and minimize the bankruptcy risks of the agribusiness entities, it is necessary to take one-time measures of financial rehabilitation by way of re-structuring, refinancing, and also funding of the agribusiness entities for repayment of the existing debts.

Table 7. Target indicator for the agribusiness financial rehabilitation

№ #	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
1	Amount of the prolonged loan and leasing obligations under the financial rehabilitation of the agribusiness entities, bln tenge	150	150						
2	Amount of subsidizing the interest rate of the loans under the	7.9	14.7	13.0	11.3	9.6	7.9	6.3	4.6



№ #	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
	financial rehabilitation of the agribusiness entities, bln tenge								

Financial rehabilitation should be carried out on a parity basis by joint and commensurable support measures from the agribusiness owners, lenders and the government.

The lenders should provide: re-structuring of the financial obligations of the agribusiness entities (through reduction of the fee rate, prolongation of the loan repayment period, providing the grace period for repayment of the principal debt, write-off of the penalties, fines, delayed fee, and other measures), refinancing and financing of the agribusiness entities for repayment of the existing debt.

Owners of an agribusiness entity should render support by: non-distribution of a part of profit between the participants before full repayment of obligations to the lenders, additional capitalization, attraction of investors, full assistance to the lenders for fulfillment of the financial rehabilitation conditions, and other measures.

The government, depending on participation of the lenders and owners, should provide support by subsidizing the fee through the financial agent for loans and/or leasing obligations which are subject to financial rehabilitation for procurement of fixed assets and financing of the working capital to bring it to the level of 7% annual interest rate, and 4% annual interest rate for leasing of agricultural machinery for the final payer, an agribusiness entity. The decision on every agribusiness entity subject to financial rehabilitation will be made individually, according to the rules of subsidizing the fee rates for the loans of financial institutions for financial rehabilitation of the agribusiness entities approved by the RK Government.

These rules will also settle the matters of financial rehabilitation for the debt between the business entities in agribusiness.

Funds for financial rehabilitation of the agribusiness entities will be attracted from the organized capital markets by the financial agent and/or second-tier banks. At the same time, the funds attracted by the financial agent can be used for other urgent tasks at a decision of the State Commission for Economy Modernization.

Efficient use of the funds (including subsidies) and achievement of the indicators and results of the financial rehabilitation will be monitored by the financial agent and an authorized body.

#### 4.2 Improvement of availability of the goods, operations and services for the agribusiness entities

The following tasks should be solved in this area:

- 1) improvement of economic availability of the goods, operations and services in plant growing sector;
- 2) improvement of physical availability of the grain storage services;
- 3) improvement of economic availability of water for the agricultural commodity producers;
- 4) improvement of economic availability of the goods, operations and services in livestock farming and commercial fish farming;

- 5) improvement of economic availability of the goods, operations and services to obtain products of deep processing of agricultural raw materials;
- 6) improvement of economic availability of financial services;
- 7) improvement of availability of the goods, operations and services within the implementation of the priority investment projects;
- 8) improvement of economic availability of educational services, results of agricultural science and consulting services.

To solve the above tasks, a differentiated subsidizing of the agribusiness sectors will be provided, taking into consideration the natural and climatic conditions and the availability of market outlets and region development capabilities. In this context, an assessment of resource potential for the production of agricultural commodities will be carried out by region and a review of the efficiency of the agriculture subsidizing system will be carried out. In addition, actions and instruments will be developed to ensure food security in the RK.

#### 4.2.1. Improvement of economic availability of the goods, operations and services in plant growing sector

4.2.1.1. Improvement of economic availability of the field and garden operations  
To strengthen the appeal of the plant growing sector, state support for improvement of economic availability of the field and garden operations to the agricultural commodity producers is planned. To achieve the set target indicators, the state support will be rendered as partial reimbursement of the expenses of the agricultural commodity producers for the establishment and cultivation of fruit-and-berry gardens and vineyards, and also for the expenses related to the spring field work and harvesting.

Table 8. Target indicators for improving economic availability of the field and garden operations

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
1	Area under crops covered by subsidizing, mln ha	18.9	19.7	19.8	19.9	19.9	19.9	20.0	19.9
2	Area under glass for growing vegetables covered by subsidizing, ha	0	364	394	424	461	461	461	461
3	Area under initiation and growing of perennial plantations of fruit-and-berry crops and grapes covered by subsidizing, ha, including								
	1 <sup>st</sup> vegetation, ha:								
	fruit-and-berry crops	1 793	6 807	7 007	7 207	7 407	7 607	7 807	8 007
	Grapes	437	2 214	2 214	2 214	2 214	2 214	2 214	2 214
	2 <sup>nd</sup> vegetation, ha:								

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
	fruit-and-berry crops	1 296	1 793	6 807	7 007	7 207	7 407	7 607	7 807
	Grapes	820	437	2 214	2 214	2 214	2 214	2 214	2 214
	3 <sup>rd</sup> vegetation, ha:								
	fruit-and-berry crops	1 231	1 296	1 793	6 807	7 007	7 207	7 407	7 607
	Grapes	474	820	437	2 214	2 214	2 214	2 214	2 214
	4 <sup>th</sup> vegetation, ha:								
	fruit crops	1271	1231	114	150	350	550	750	950
	Grapes	1153	474						
	5 <sup>th</sup> vegetation, ha:								
	fruit crops				114	150	350	550	750
	6 <sup>th</sup> vegetation, ha:								
	fruit crops					114	150	350	550
	7 <sup>th</sup> vegetation, ha:								
	fruit crops						114	150	350

#### 4.2.1.2. Improvement of economic availability of the mineral fertilizers and herbicides

For encouraging the agricultural commodity producers to take actions aimed at increasing yield capacity and quality of plant growing products, it is proposed to provide government support targeted at improving economic availability of the mineral fertilizers and herbicides.

Table 9. Target indicators for improvement of economic availability of the mineral fertilizers and herbicides

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
1	Amount of the procured mineral fertilizers covered by subsidizing, thousand tons	231.2	255.8	269.2	303.0	334.5	360.6	386.6	412.7
2	Amount of the procured herbicides covered by subsidizing, thousand liters	27 873.0	30 713.9	30 956.7	31 279.0	31 371.7	31 524.9	31 728.4	31 928.5

#### 4.2.1.3. Improvement of economic availability of the elite seeds and seedlings of the fruit-and-berry crops and grapes

The evolution of the grain market in the republic stimulated development of the grain seed business to the scientifically based rates of output. At the same time, production output of the elite seeds for such crops as durum wheat, brewing barley, legumes, cereals, oil crops, and sugar beet did not meet the demand.

There are also problems related to material and technical equipment of the business entities, especially in seed-growing of small-seed crops.

Due to inadequate organization of the seed-growing system and insufficient quantity of the seeds supplied to reproduction, the process of introduction of the new approved varieties and hybrids, after their inclusion into the state register of selection achievements, was slow. There is a need for restoration of the system of nurseries, technical and technological upgrade of the nurseries, creation of the service centers for storage and selling of the planting stock, and construction of the grafting centers.

Considering importance and priority of plant selection, crop variety testing and seed-growing, the optimization measures will be introduced that cover the system of selection development and functioning; the state and industry testing of varieties and hybrids; the production and marketing of the original and elite seeds, their reproduction in a network of seed-growing farms up to the first to third reproduction; and, the state control of varieties and seeds.

Table 10. Target indicators for improvement of economic availability of the elite seeds and seedlings of the fruit-and-berry crops and grapes

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
1	Amount of the procured elite seeds covered by subsidizing, thousand tons	73.6	96.2	102.1	110.1	120.0	140.0	150.5	168.3
2	Amount of the procured elite seedlings covered by subsidizing, thousand pcs	2433.9	1897.65	1897.65	2949.7	4001.8	4001.8	4493.2	4493.2
3	Area of the established mother plantations of the perennial fruit-and-berry crops and grapes, hectares	12.86	23.38	23.38	10.92				
4	Service areas of the mother plantations of the perennial fruit-and-berry crops and grapes, covered by subsidizing, hectares	29.3	21.6	36.24	46.76	34.3	10.92		

#### 4.2.1.4. Improvement of economic availability of the expert assessment of the Kazakhstan lint cotton and raw cotton quality during incoming inspection at the cotton processing facilities

For improving economic availability of the professional assessment of the domestic lint cotton and raw cotton quality, it is planned that subsidizing will be continued for this type of expert examination. Such evaluation by experts will enable to certify the products and sell them at higher prices thus supporting the revenues of the agricultural commodity producers and the facilities processing raw cotton.

Table 11. Target indicators for improvement of economic availability of the expert assessment of the Kazakhstan lint cotton and raw cotton quality during incoming inspection at the cotton processing facilities

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
1	Number of examinations for assessing the quality of lint cotton performed at the expense of subsidies, thousand pcs.	170	394	388	382	382	391	400	400
2	Number of examinations for assessing the quality of raw cotton performed at the expense of subsidies, thousand pcs.	56	130	128	126	126	129	132	132

#### 4.2.1.5. Improvement of economic availability of the expert assessment of the variety and planting characteristics of seeds

To increase yield and improve quality of the cultivated agricultural crops, it is planned to provide expert assessment of the variety and planting characteristics of seeds, including the seeds to be planted by the domestic agricultural commodity producers.

Table 12. Target indicator for improvement of economic availability of the expert assessment of the variety and planting characteristics of seeds

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
1	Number of tests to assess the quality of seeds, thousand pieces	330.4	330.4	330.4	330.4	330.4	330.4	330.4	330.4

#### 4.2.1.6. Improvement of economic availability of the insurance in crops growing sector

For improving economic availability of the mandatory insurance services in the plant growing sector, the state support for the agricultural commodity producers is planned in the form of subsidizing insurance compensations paid by insurance companies. An investigation will be performed to review the issue on whether it is expedient to move from insurance compensation payments to insurance premium payments.

Table 13. Target indicator for improvement of economic availability of insurance in the plant growing sector

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
1	Proportion of areas under crops covered by insurance, %	73	74	74	80	85	90	95	100

#### 4.2.2. Improvement of physical availability of the grain storage services

To develop the grain storage infrastructure, new grain storage facilities will be constructed in the Northern Kazakhstan in 2013-2014. Northern Kazakhstan is the key grain producing region suffering from the greatest shortage of the storage capacity. Thus, the operating facilities will be expanded and new granaries will be constructed.

To strengthen the presence of the state in the grain market as well as to develop the western and southern directions of grain export, new grain transshipment facilities will be constructed in the southern and western regions of the country.

The existing grain storage facilities will be upgraded, including upgrade of the fixed assets, strengthening of the structural components of the silo housings, and technological reconstruction will be carried out as well. In 2011 – 2012, 71 grain storage facilities with a total capacity of 1.005 million tons were put in operation, including 884,500 thousand tons at the expense of own means of the agricultural commodity producers and 121,000 tons with the involvement of the JSC NUKh KazAgro.

To build up the export potential of the Kazakhstan grain through the Caspian Sea, the throughput of the grain terminal in the sea port of Aktau will be increased in 2015 – 2020. Considering the growing population of China and change of the structure of consumption towards increase of wheat products proportion, the China market looks very promising for Kazakhstan. At the same time China is of interest as a transit state for export of the Kazakhstan grain to the countries of South East Asia and other countries of that area. In view of the above, a grain terminal will be constructed at the border with China for grain export stimulation.

At the present time, along with an increased domestic demand for the grain storage capacity, there is also a great interest from the Arab countries for procurement of the Kazakhstan grain with the establishing of a Mutual Food Aid Fund of the Organization of Islamic Cooperation (hereinafter, the Fund) and formation of a regional strategic grain reserve for this purpose in the RK territory with a capacity of up to 2 mln tons.

Thus, to develop the grain storage infrastructure, it will be practical to build up and maintain the grain storage capacity at a level not less than 2 mln tons in 2015 – 2020, and in case of successful functioning of the fund, up to 3 mln tons.

Table 14. Target indicators for improvement of physical availability of the grain storage services

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
1	Expansion of the existing and procurement of new granaries as well as construction and equipment of new grain terminals and granaries with the total storage capacity of 700 thous. tons, percent of facility commissioning, %	28.6	71.4	-	-	-	-	-	-

#### 4.2.3. Improvement of economic availability of water for the agricultural commodity producers

To reimburse costs of water users paid for the provided services on water supply for the irrigation of agricultural crops, the state support to the agricultural commodity producers will be continued within the approved limit.

Table 15. Improvement of economic availability of water for the agricultural commodity producers

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
1	Volume of water subject to subsidizing, mln m <sup>3</sup>	7686	7781	7810	7786	6826	5924	5986	6000

#### 4.2.4. Improvement of economic availability of the goods, operations and services in the livestock farming and commercial fish farming

##### 4.2.4.1. Improvement of economic availability of the livestock housing and making of livestock products

To develop the livestock farming sector and motivate the agricultural commodity producers for technology upgrade of production as well as to increase the output and improve quality of livestock products, there are plans to continue the state support provision to the livestock producers. The state support will be aimed at reimbursement of the livestock production expenses, cost reduction of the fodder used for feeding the breeding stock of agricultural animals, which will facilitate the expansion of their population and increase offspring.

Thus, due to providing commercial output of the livestock produce, it is planned to increase a load for the enterprises involved in processing of the domestic livestock products that comply with the approved requirements and standards.

Table 16. Target indicators for improvement of economic availability of the livestock housing and making of livestock products

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
1	Population of the cattle breeding stock in agricultural units covered by subsidizing, thousand heads	360.0	358.0	479.0	622.3	791.5	992.7	1233.1	1521.3
2	Amount of produced beef covered by subsidizing for the reduction of prices on compound and concentrated feedstuff, thousand tons	28.2	34.0	37.6	41.5	46.2	52.0	59.6	69.7
3	Amount of produced milk, kumiss (horse milk) and shubat covered by subsidizing for the reduction of prices on compound and concentrated feedstuff, thousand tons	235.3	235.6	281.3	306.3	29.6	266.4	215.5	258.1
4	Amount of produced lamb covered by subsidizing for the reduction of prices on compound and concentrated feedstuff, thousand tons	3.0	5.2	7.4	8.5	9.9	11.7	13.9	16.8
5	Amount of produced horse meat covered by	4.4	5.3	6.9	10.0	13.4	17.2	21.4	26.2



#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
	subsidizing for the reduction of prices on compound and concentrated feedstuff, thousand tons								
6	Amount of produced pork covered by subsidizing for the reduction of prices on compound and concentrated feedstuff, thousand tons	25.5	27.6	27.3	26.4	24.9	28	31.8	35.9
7	Amount of produced poultry meat covered by subsidizing for the reduction of prices on compound and concentrated feedstuff, thousand tons	126.2	138.8	152.7	168.0	184.8	203.3	223.6	245.9
8	Amount of produced commercial eggs covered by subsidizing for the reduction of prices on compound and concentrated feedstuff, mln pieces	2205.8	2303.0	2157.0	1999.0	1831.0	1650.0	1457.0	1500.0
9	Amount of produced wool covered by subsidizing for the reduction of prices on compound and concentrated feedstuff,	1.3	1.3	1.4	1.5	1.6	1.7	1.8	1.9

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
	thousand tons								

#### 4.2.4.2. Improvement of economic availability of the livestock pedigree products

To increase the proportion of the pedigree animals, restore and expand the gene fund of the meat livestock, and to improve productive characteristics of the farm animals owned by the agricultural commodity producers, the state support to the agricultural commodity producers for procurement of the domestic and foreign pedigree stock will continue.

Reimbursement of the expenses of the agricultural commodity producers for acquisition of breeding material (animals, semen and embryos) will serve as a key form of the state support.

In addition, the agricultural commodity producers involved in improvement of the livestock qualitative structure and pedigree characteristics will receive support as subsidies for keeping the pedigree breeding stock and breeding bulls, as well as for selection and breeding activities.

The state support will also be extended to the development of sheep breeding, horse breeding, camel breeding and poultry breeding, that will create conditions for increasing the proportion of pedigree population in the total herd of the farm animals and will improve their productivity.

Support will be rendered to the domestic poultry factories for acquisition of the breeding material (daily chicks and hatching eggs).

Subsidizing of pedigree livestock farming will allow further implementation of the project for build-up of an export potential of cattle meat launched in 2011.

Under this project, the establishment of reproduction farms, feeding farms and meat cattle rearing farms will be continued.

Table 17. Target indicators for improvement of economic availability of the livestock pedigree products

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
1	Population of the procured pedigree cattle of domestic selection covered by the allocated subsidies, thousand heads	13.6	26.2	37.9	48.0	58.4	59.3	60.2	61.3
2	Population of the procured pedigree meat cattle of foreign selection covered by the allocated subsidies,	14	16	18	-	-	-	-	-

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
	thousand heads								
3	Population of the procured pedigree dairy cattle of foreign selection covered by the allocated subsidies, thousand heads	7	9	10	10	-	-	-	-
4	Livestock population covered by subsidies for the pedigree and selection work in meat and dairy cattle breeding, thousand heads	238	266	334	406	484	567	657	804
5	Population of the pedigree bulls of meat breeds used for breeding in the public herd formed from the livestock of private farms covered by subsidies for animal holding, thousand heads	1	2	3	4	5	5	5	5
6	Quantity of transplanted embryos covered by subsidizing, thousand pcs.	1.1	2	3	4	5	5	5	5
7	Quantity of semen doses covered by subsidizing for artificial insemination, thousand pcs.	285	266	334	406	484	567	657	804
8	Quantity of procured daily chicks (broilers) covered by subsidizing, thousand heads	287	308	363,5	419,1	423,7	426,7	429,2	433,8
9	Quantity of procured daily	737	876	905	934	983	990	1017	1044

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
	chicks (egg producing) covered by subsidizing, thousand heads								
10	Quantity of procured hatching eggs, thousand	4381.0	4436	4580	4821	4855	4984	5120	5120
11	Quantity of the procured pedigree sheep youngstock covered by subsidizing, thousand heads	135.6	149.2	186.5	186.5	204.0	218.5	227.6	227.6
12	Quantity of the procured pedigree elk youngstock covered by subsidizing, thousand heads	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
13	Quantity of the procured pedigree swine youngstock covered by subsidizing, thousand heads	6.5	7.2	9.0	9.0	9.8	10.5	10.9	10.9
14	Quantity of the procured pedigree horse youngstock covered by subsidizing, thousand heads	3.5	3.9	4.9	4.9	5.3	5.7	5.9	5.9
15	Quantity of the procured pedigree camel youngstock covered by subsidizing, thousand heads	0.4	0.5	0.6	0.6	0.7	0.7	0.7	0.7
16	Population of small ruminants covered by subsidizing for conducting pedigree work in sheep farming, thousand heads	1077	1185	1481	1480	1619	1735	1807	1807

4.2.4.3. Improvement of economic availability of the goods, operations and services in commercial fish farming

To develop commercial fish farming (aquaculture) in Kazakhstan, conditions for increase in production of commercial fish and expansion of their range because the most valuable fish species will be provided.

The production potential of the commercial fish farming by 2020 is estimated at 15 thousand tons.

For support and development of commercial fish farming, subsidies for the management of the breeding and replacement stock of valuable fish species will be provided.

Table 18. Target indicators for improvement of economic availability of the goods, operations and services in commercial fish farming

№ #	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
1	Live weight of the breeding and replacement stock of valuable fish species, covered by subsidizing, kg	-	-	-	4 105	20 540	149 255	163 565	290 500

To implement the measures for development of commercial fish farming and achievement of the specified target indicators, the law on commercial fish farming development should be improved.

#### 4.2.5. Improvement of economic availability of the goods, operations and services for making products of advanced processing of the agricultural raw materials

To develop the sector of processing of agricultural raw materials and improve the product quality, state support through subsidizing of the expenses involved in advanced processing of the agricultural raw materials and production of finished goods is planned.

The said support from the state will provide equal conditions to the domestic processing enterprises and the enterprises of the CU countries. The expected results include an increased output of competitive products, reduced percentage of imported products made by deep processing of milk and sugar in the domestic consumption, and positive effect on the financial and economic activities of the enterprises, which will also provide a positive effect on development of the processing sector of the agribusiness.

Table 19. Target indicators for improvement of economic availability of the goods, operations and services for making products of advanced processing of the agricultural raw materials

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#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
1	Produce volume covered by subsidizing, thousand tons, including:								
	- powdered milk	-	3.2	3.4	3.7	3.9	4.2	4.5	4.8
	- cream butter	-	15.7	17.2	18.9	20.8	22.9	25.2	27.7

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
	- cheese	-	7.0	7.4	7.7	8.1	8.5	8.9	9.4
	- beet sugar	-	51.6	54.1	57.4	61.8	67.3	72.4	-

#### 4.2.6. Improvement of economic availability of the financial services

##### 4.2.6.1. Improvement of economic availability of the loans and leasing

For stable agribusiness management, the agribusiness entities need funds to acquire fixed assets (including leasing of agricultural machinery) and financing of the working capital which are mostly raised as loans from financial organizations. However, the financial organizations issue short-term loans at high fee rates to the agricultural commodity producers because of specific characteristics of agricultural production (dependence on natural conditions, low productivity and profitability compared with the other sectors of economy). For instance, according to the RK National Bank, an average annual fee rate for the loans issued to the agribusiness entities in 2006 – 2011 is 12 to 16%, whereas in the other sectors of the economy it is 10 to 13%.

As a result, the agribusiness entities pay a high fee for the loans to finance their fixed assets and working capital, which causes an increase in the unit product cost and reduces its competitiveness.

To address the problem of alleviating the financial burden on the agribusiness entities, subsidizing of the fee rate for the leasing and loans issued to the agribusiness entities (including those involved in production of grain, oil crops and legumes) will be provided. The existing level of technical agricultural equipment constrains its efficient development. This has a negative effect on the time and quality of seasonal agricultural work. Without the necessary machinery and equipment, unsatisfactory access to cheap and long-term loans, the agribusiness entities have to use simplified production and processing. Most agricultural commodity producers cannot afford to update fixed assets because of the high cost of agricultural machinery, spare parts and equipment, and short terms of the bank loans/leasing. The bulk of loans used for acquisition of the fixed assets are obtained from the borrowed (raised) and own funds of the second-tier banks and leasing companies. Taking into account an average 12-15% fee rate of loan/leasing, it turns out that a farmer pays practically two prices for the equipment/machinery during 7 – 9 years. Also, the repayment periods established by the second-tier banks for the loans issued to the agricultural commodity producers do not agree with the specific features of agricultural production which is characterized by long repayment of investment.

In this connection, the situation in the financial market is such that 42% of the loans issued in the agricultural sector were issued through the branch joint-stock companies of the JSC NUKh KazAgro.

An explanation of small involvement of the second-tier banks, micro credit organizations and loan partnerships in financing of the agribusiness projects is that they lack long-term sources of funding and high loan risks of the sector.

To address this problem, it is suggested that experience of Germany should be applied, and the JSC NUKh KazAgro should be used for funding the second-tier banks for the subsequent financing of agribusiness projects at the terms acceptable to the agribusiness entities. The money thus obtained can be placed by the holding company in the branch organizations according to the limits which will be periodically approved and revised by the board of directors.

Thus, the JSC NUKh KazAgro will gradually reduce direct lending to the agribusiness entities and will fund the second-tier banks, micro credit organizations and loan partnerships

using their own and raised funds. This will improve access to financing using the existing bank infrastructure with the developed branch network, and the agribusiness entities will be also able to receive loans at an acceptable fixed rate for longer terms, and also a full range of bank services.

To implement the measures for subsidizing the fee rate for leasing the agricultural machinery, an organization which will act as the operator for this type of state support will be involved.

Table 20. Target indicators for improvement of economic availability of the loans and leasing

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
1	Total loans, including leasing, issued to the agribusiness entities as subsidies of the fee rates, bln tenge	100	326.6	457.3	600.3	747.2	886.8	951.0	1 020.9
2	Total loans received by the agribusiness entities through funding from the second-tier banks, micro credit organizations and loan partnerships, bln tenge	3	5	8	12	14	16	18	20

4.2.6.2. Improvement of economic availability of the loans through insurance and guarantee of the loans to the agribusiness entities towards the financial institutions  
Currently, about 30% of the small- and medium-size agribusiness entities have no access to financing due to a lack of the appropriate highly liquid collateral and an unreliable financial state.

This issue was articulated by the Head of State in the Address to the Kazakhstan Nation dated January 27, 2012, “Social and Economic Modernization, a Key Development Vector of Kazakhstan” where he set forth the goal for introduction of the state system of loan guarantee and insurance to reduce risks of private investments in the agricultural production. In this context, a system of insurance and guarantee of loans to the agribusiness entities towards the financial institutions will be introduced to provide availability of the loan resources for the agribusiness entities and involve the financial organizations in the process of active financing of the agribusiness.

Table 21. Target indicator on the increase of economic availability of loans through insurance and guarantee of the loans to the agribusiness entities towards the financial institutions.

#	Indicator	Years of implementation						
		2014	2015	2016	2017	2018	2019	2020
1	Total loans issued by	105.9	142.2	182.4	223.1	270.2	322.1	375.1

#	Indicator	Years of implementation						
		2014	2015	2016	2017	2018	2019	2020
	the financial institutions to the agribusiness entities through the system of loan insurance and guarantee, bln tenge							

#### 4.2.7. Improvement of availability of the goods, operations and services during implementation of the priority investment projects

One of the key objectives in development of the agribusiness is an increase of agricultural output by facilitating the attraction of investments for construction of new production facilities or expansion of the existing facilities. At present, there are soft loan products issued by the branch organizations of the JSC NUKh KazAgro and compensation of the fee rates for the loans for financing of the fixed assets and working capital under the state support programs.

However, the said tools are not sufficient for active motivation of the agricultural entities for implementation of the investment projects in the priority agribusiness branches.

Thus, to reduce capital intensity and duration of repayment of the investment projects, the state support as partial indemnification of the expenses (civil work and installation, procurement of the equipment and agricultural and special machinery) will be introduced in the RK for the investment aimed at construction of new production facilities or expansion of the existing facilities in the priority agribusiness sectors.

Table 22. Target indicators for improvement of economic availability of the goods, operations and services during implementation of the priority investment projects

#	Indicator	Years						
		2014	2015	2016	2017	2018	2019	2020
1	Amount of attracted investments at the expense of investment subsidies, bln tenge	100	115.3	73.4	77.9	66.8	69.2	73.1

#### 4.2.8. Improvement of economic availability of the educational services, results of agricultural science and consulting services

To provide access of the agribusiness entities to modern technologies and advanced scientific developments, efforts for reforming the domestic system of agricultural science will be continued in the agribusiness.

The ultimate goal of the reforming will be construction of a steady system for generation and distribution of competitive innovations in the agribusiness. The JSC KazAgroInnovatsia will be the coordinator of the national system of agricultural science.

The basic lines of reforming the domestic agricultural science will be:

1) construction of a new system of the agricultural research management on the model of the leading agricultural producing and exporting countries, to be focused on close interaction between the sectoral and university science, integration in the world science system,



application of the integrated science-and-technology programs with effective mechanisms of interaction between the research organizations and agribusiness entities;

2) a stage-by-stage increase in the state financing of the national agricultural research system to the level of the technologically leading countries – not less than 1% of the gross product of the sector;

3) new human resources policy promoting involvement of the talented youth in the agricultural science and creation of conditions for professional implementation of the most promising scientists;

4) a stage-by-stage upgrade of the infrastructure of the research and research-and-experiment organizations for improvement of the research quality and formation of the own technological platforms for the priority lines of the agribusiness development.

On the part of the state, to increase effectiveness, efficiency and competitiveness of the research results, the necessary organizational conditions will be created and financial resources will be allocated to complete the reforming of the domestic agricultural science and its further development.

For formation of a new scientific innovation system of generation and dissemination of advanced knowledge in agribusiness with the results compatible with the world best results, efforts for establishing the trans-disciplinary scientific educational complexes (centers) at the international level will be continued.

To improve practical applicability of the R&D results and their focus on the actual demands of the agribusiness entities, mechanisms of integrated science-and-technology programs will be applied during development of the research subjects, providing for comprehensive approach to the problems being investigated, measures for practical implementation of the results and training of the necessarily skilled scientific cadre.

Simultaneously, it is planned to improve the system of transfer and commercialization of the agrotechnologies for activization of the innovation activities in the agribusiness by increasing the investment opportunities of the agricultural commodity producers and expansion of coverage of the agribusiness entities by the services of the knowledge dissemination system.

A stage-by-stage increase in the budgetary expenditure for the agricultural science is expected, to provide its growth in the gross domestic product (hereinafter, GDP) to an average level of the advanced countries (up to 2% of GDP of the agriculture) by 2020.

To develop private-public partnership for generation and implementation of innovations in agribusiness, conditions for attraction of private investment in this area will be created, with the successive increase in the percent of private investment to the level of the countries with intensive agriculture. By 2020, the percent of financing of the agricultural research from non-state sources should be not less than 3% of the total financing.

Considerable assistance in this area will be rendered by the Food and Agriculture Organization of the United Nations (hereinafter, the FAO) that assists the FAO member countries in providing consultations during development of agricultural policy, technical assistance, information and consulting services in agricultural production.

Today, the FAO practices a policy of decentralization of the organization structure so that the FAO experts work directly in the member countries, which will allow quick response to the changes in the agricultural policy, development of the recommendations together with the governments of the countries and defining the priority lines of the agriculture development taking into account the specific features of the region. In this connection, an FAO Office will be opened in Kazakhstan, which will provide an opportunity to receive prompt consultations from highly skilled agricultural experts during development of the agricultural policy, technical and consulting assistance in the priority lines of agribusiness. In addition, activities of the FAO Office in Kazakhstan will be aimed at implementation of the regional projects with participation of the Republic of Kazakhstan to address the trans-boundary issues.

To improve economic availability of the educational services and results of the agricultural science. Implementation of scientific developments assumes state support of the agribusiness in the form of subsidies.

To support effective feedback between the agribusiness entities and state bodies, agricultural science and vocational training system, subsidizing of free consulting assistance of the agricultural commodity producers will be continued within the knowledge dissemination system.

Table 23. Target indicators for improvement of economic availability of the educational services, results of agricultural science and consulting services

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
1	Number of domestic R&D accomplishments with practical applications in agribusiness, pcs.	0	0	17	20	22	24	26	28
2	Number of the agribusiness entities covered by the services of the knowledge sharing system, pcs.	2 375	10 165	11 535	12 855	14 300	15 570	17 190	20 510
3	Number of implemented innovative projects on transfer and commercialization of agricultural technologies, pcs.	2	12	15	18	21	24	27	30

#### 4.3. Development of the state systems of supporting the agribusiness entities

It is planned to solve the following tasks in this area:

- 1) development of the phytosanitary safety system;
- 2) development of the veterinary safety system.

##### 4.3.1. Development of the phytosanitary safety system

To ensure phytosanitary safety, it is necessary to conduct timely monitoring of development and spread of quarantine, highly dangerous and harmful agents, forecast their distribution, using up-to-date equipment, and to determine coordinates of their spread in order to take actions for containing and eliminating the sites of spread to control harmful agents and highly dangerous pathogens.

For the evolution of the phytosanitary safety system based on the international experience and best practices, and for the introduction of a unified approach and standardization of interaction between the government authorities in the area of plant quarantine phytosanitary safety, there is a need to carry out a regulatory phytosanitary risk analysis (hereinafter –

PRA). However, PRA is currently performed in the RK on the basis of orders and no systematic studies are in place.

Standards will be developed for fitting laboratories with the state-of-the-art equipment for studying plant pests, weeds and diseases, e.g. amplifiers.

The unified automated management system “E-Agriculture” will be updated and supplemented with a common integrated information system covering the area of phytosanitary safety.

To implement safe modalities for control of highly dangerous agents, standards will be developed for introducing methods of biological control of the major pests of cotton, vegetable, fruit, grapes and other crops.

According to the plans, from 2014 the costs of bioagents (entomophages) and biological preparations for cotton treatment will be reduced for the agricultural commodity producers; and from 2016, the costs of bioagents (entomophages) and biological preparations designed for treatment of vegetable crops in covered and open ground, cucurbits and fruit crops will be reduced.

The universal and growing threats posed by the quarantine; highly dangerous and harmful agents that affect the agricultural commodity producers, plant biodiversity, natural habitats, and the ecosystems remain to be the main challenges for the RK Service for Plant Protection and Quarantine. Newly emerging harmful agents are identified continuously, and those already known are found to have broader distribution. They inflict losses due to the climate change and, in view of the above, the efforts to control quarantine and highly dangerous and harmful agents will be continued.

Indicators characterizing the area of distribution of quarantine and highly dangerous agents and the area covered by chemical treatments and their effectiveness are recognized as the key parameters highlighting an expected change in the phytosanitary well-being of the country. With an annual improvement of the efficiency of chemical treatments by 0.2%, the coefficient of threat of distribution of quarantine and highly dangerous pathogens by 2020 will amount to 0.88.

Table 24. Target indicators for development of the phytosanitary safety system

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
1	Coefficient of threat of distribution of quarantine and highly dangerous pathogens	1.02	1.00	0.98	0.96	0.94	0.92	0.90	0.88

#### 4.3.2. Development of the veterinary safety system

In the current conditions of livestock farming in the RK, where the major population of all species of farm animals is concentrated in private backyards, small-size facilities, farms and cooperative holdings, the issue of elimination of infectious and invasive diseases has become crucial.

A comprehensive approach to solving the existing problems in the veterinary sphere is based on the development of a series of target programs for prevention, prophylactics and eradication of infectious and wide-scale non-contagious animal diseases in the RK, as a whole, and in its regions (including private farms), as well as the enhancement of veterinary control and surveillance in this sphere.

A stable epizootic situation in the country provides a platform for the development of the RK agricultural export potential. Thus, the key goal of the development of the veterinary

safety system is to ensure sustainable veterinary-and-sanitary well-being of the RK territory and food safety for the final users, i.e. humans.

Table 25. Target indicators for the veterinary safety system development

#	Indicators	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
1	Percentage of diagnostic tests for highly dangerous animal diseases, using veterinary preparations whose production is certified according to the international standards, %	7	20	65	80	80	80	80	80
2	Percentage of applied immunoprophylactic veterinary preparations for highly dangerous animal diseases, whose production is certified according to the international standards (e.g. GMP-compliant), %	25	30	40	67	70	70	70	70
3	Percentage of food products subjected to monitoring laboratory tests, %		0.13	0.18	0.22	0.27	0.32	0.36	0.40

It is planned to achieve these indicators both by conducting regular diagnostic, prophylactic-and-therapeutic and eradication measures and by implementing new initiatives targeted at the improvement of efficiency of the above measures and the optimization of the veterinary safety system as a whole.

Currently, a long-term strategy for the development of the RK veterinary service has been established, approved and concurred by the OIE. It includes measures aimed at the revision of the earlier strategy on conducting anti-epizootic veterinary actions against highly dangerous animal diseases and is based on the OIE recommendations. In this light, comprehensive plans will be designed for control, prevention and elimination of highly dangerous animal diseases (foot-and-mouth disease, brucellosis, rabies, echinococcosis, etc.) with the participation of all involved government agencies. In addition, such action plans will be based on the principles of risk analysis, assessment and management and zoning of the country territory; the implementation of epizootic surveillance system; the introduction of passive and active control, mathematical modeling and forecasting (hereinafter – the GIS-Program). Moreover, it will allow using specific immunologic prophylaxis for highly dangerous diseases, including animal brucellosis. Vaccination for foot-and-mouth disease (FMD) will be conducted for prevention and targeted at avoiding further dissemination of the diseases in case of outbreak occurrence, or, if there is a potential threat of FMD importation from the neighboring countries that have this disease, it will be used for determining a buffer zone. Also, serological monitoring to detect non-structural proteins of FMD virus will be conducted throughout the country for determining pathogen circulation area. If necessary, to receive a status “territory is free from the infection with vaccination”, the overall susceptible population of animals will be vaccinated in all regions of the RK. Besides, within this strategy, a Coordination OIE Center for FMD Control in the Central Asian Region and a vaccine bank will be established for the RK beneficiaries.

With regards to the laboratory network operations, multiple diagnostic tests will be optimized through the launch of a mathematically significant sample selection system and the diagnostic testing at the regional level, depending on availability of equipment and staff skills, followed by the transition to new testing methods recommended by the OIE.

Also, the efficiency of prophylactic actions will be based on the use of veterinary diagnostic kits and immunological prophylactic products complying with the international standards, e.g. GMP/GLP, with a stage-by-stage development of the national bioindustry that will engage the world top manufacturers.

Moreover, the international practice of disposal of biological waste, animal carcasses, veterinary products and diagnostic kits will be put in place using specialized incinerators at the local level, in each of the regional centers and rural areas.

To implement successfully veterinary-and-sanitary, preventive, diagnostic and eradication programs, an additional plan has been developed on fitting out veterinary institutions (government veterinary laboratories, anti-epizootic teams, veterinary stations and units).

A procedure at the expense of government funds will be established in order to streamline the system of livestock identification; to support monitoring of animal-origin products; and, to ensure food safety. It will be available for free to the livestock owners. At the same time, the responsibility of the animal owners will be enhanced for not using the procedure. Besides, the role of the processing center will be strengthened, since it will have a new function; centralized procurement of items and tools and attributes for making identification at the facilities of the agricultural commodity producers registered with ICAR. The introduction of the information management system will enable efficient regulation processes in the veterinary area for control and tracking of products throughout their life cycle based on the concept “from farm to fork.”

For enhancing inspection control at the RK borderline, it will be necessary to set up specialized checkpoints (checkpoints for animals, animal-origin products and raw materials) and to provide for their infrastructure. Veterinary-and sanitary control is to be conducted taking into account practices and methods of risk identification at the food manufacturing and livestock farming facilities. With concerns to food safety, monitoring of food products for MRLs will be conducted to enhance safety of livestock products for the final users.

To solve issues in veterinary science, a cooperation with the OIE, FAO and the top world research veterinary centers will be established and veterinary research institutions will be fitted with advanced equipment.

The program will also be focused on the training of veterinary experts. It will be possible to create a national register and to initiate advanced training courses (e.g. abroad), conduct revision of training programs based on the international experience, and to invite international experts for training and extension courses. To make the veterinary service more attractive, some steps will be taken for increasing salaries and upgrading social status of veterinary professionals.

An emphasis will be made on the optimization of the veterinary legislation taking into account the OIE and FAO guidelines on the harmonization of the regulatory module with the international requirements. It will include an enhanced responsibility of the entrepreneurship entities for the safety of sold livestock, products and raw materials of animal origin. Within the framework of these efforts, veterinary-and-sanitary control will be put in place according to the concept “from farm to fork.”

Also, the coordination with the involved government agencies, international organizations and public associations will be improved, including timely provision of information on the relocation of the objects controllable by the state veterinary and sanitary control system, occurrence of zoonanthroponotic diseases and the deterioration of epizootic situation in the adjacent countries.

#### 4.4. Improvement of efficiency of the state agribusiness regulation systems

Within this area, it is planned to solve the following tasks:

- 1) improvement of efficiency of the agrochemical service of agriculture;
- 2) development of the information support systems for the agribusiness entities
- 3) improvement of efficiency of the state crop variety testing;
- 4) development of the system of state services for the agribusiness entities
- 5) development of the technical regulation system in agriculture;
- 6) improvement of efficiency of the state control and surveillance system in agribusiness;
- 7) creation of conditions for the development of production and circulation of organic agricultural produce.

##### 4.4.1. Improvement of efficiency of the agrochemical service of agriculture

One of the ways to provide sustainable and efficient land use and improvement of fertility is well-established control over the agrochemical condition of the agricultural land.

Agrochemical surveys of the soil has been carried out since 2000. In 2000 – 2011, 19.1 mln ha or 78% of the total arable land of the republic were covered by the survey.

Control of the agrochemical condition of soil fertility requires agrochemical survey of soil with defined periodicity, which is once in five years for irrigated land and once in seven years for non-irrigated crop growing in the RK.

Such periodicity will allow completion of the first round of the survey and generation of the basic fertility indicators. However, the existing annual amount of agrochemical soil survey of the area no more than 1.5 mln ha does not allow for such periodicity.

To achieve such periodicity, annual agrochemical soil survey of not less than 3.5 mln ha should be provided.

Table 26. Target indicator for improvement of efficiency of the agrochemical service of agriculture

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
1	Area of agrochemical survey of arable land, mln ha	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5

Criteria of the agrochemical monitoring of soil fertility include maintaining an information databank for the agrochemical condition of the agricultural land and preparation of agrochemical maps on the content of humus and mobile forms of nutrients in arable soil. The maps serve as a basis for development of the recommendations on efficient and sustainable use of mineral fertilizers and conservation of soil fertility.

The databank and agrochemical maps make a basis for control of soil fertility conservation during a repeated survey after 5-7 years.

In the future, it is planned to issue conclusions on the agrochemical survey of soil to the state land use and protection inspectors that will make basis for administrative measures up to withdrawal of the agricultural land that caused significant degradation of the soil fertility.

#### 4.4.2. Development of the information support systems for the agribusiness entities

Solution of the internal problems of agriculture, such as desertification due to intensive livestock rearing and soil salination, susceptibility of the agricultural production structure to the influence of the climatic conditions, will stimulate continuous search of the methods of improving efficiency of the agricultural production.

One of such methods is precision agriculture. It is a type of agriculture with detailed control based of the real data, aimed at improvement of productivity and quality of the produce.

To gather information and process data on the agricultural land (soil humidity, plant growth and diseases, meteorological data), it is planned to introduce a system of analysis and forecasting for the precision agriculture.

Table 27. Target indicator for development of information support of the agriculture

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
1	Use of precision agriculture, number of regions		3	9	4				

#### 4.4.3. Improvement of efficiency of the state crop variety testing

The main task of the State Commission for Agricultural Crop Variety Testing (hereinafter, the State Commission) comprises organization and conducting of state tests for economic utility and expert assessment of patentability of the new varieties of domestic and foreign selection, which reveals the best varieties of agricultural crops by a number of economically valuable attributes and properties.

Today, the State Commission of the RK has 12 regional inspectorates, 3 areal inspectorates, 3 state variety testing stations and 73 variety testing plots.

Fitting the state variety testing plots with laboratory instruments, equipment, agricultural equipment and machinery (including specialized machinery) is 46 % of the need and is a challenge.

It should be noted that improvement of material and technical equipment of the state variety testing plots and laboratory equipment will enable appropriate assessment of the varieties being tested for economic utility and patentability to obtain reliable test data. Technical equipment of the crop variety testing process is a primary factor of its effective development; it improves quality of the crop variety testing due to timely performance of the whole scope of the field operations recommended by the zone agriculture system. This enables revealing high yield varieties for introduction in production, which will allow an increase in the output of the crop growing sector.

Table 28. Target indicator for improvement of efficiency of the state crop variety testing

[illegible]

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
	most productive and valuable varieties								

#### 4.4.4. Development of the system of state services for the agribusiness entities

To develop the system of state services for the agribusiness entities, implementation of the measures for automation of the state services and intensification of the activities of the state agencies for rendering services through the public service centers is planned.

Automation of the state services:

In the modern world, information and telecommunication technologies are widely used by the state agencies to improve quality of services rendered to the public.

In Kazakhstan, with its huge territory and long distances between rural communities, application of the new computer technologies is necessary to reduce labor input of the agricultural commodity producers and rural population.

Today, only two services have been partially automated in agriculture, which makes up 4% of all state services rendered by the RK Ministry of Agriculture.

Accordingly, expansion of the state services rendered in an electronic format has a high potential for development in Kazakhstan.

Table 29. Target indicator for automation of the state services

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
1	Percentage of the state services converted into electronic format, %	55 (20 services)	28 (10 services)	17 (6 services)					

Transfer of the state services to the public service centers:

One of the key objectives in the provision of the state services is to eliminate contacts between a public official and recipients of the services, as well as to simplify the service process for the consumer through using the “one window” principle.

Table 30. Target indicator for transfer of the state services to the public service centers

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
1	Percentage of the state services transferred to the public service centers, %	22 (8 service s)	14 (5 service s)						

#### 4.4.5. Development of the technical regulation system in agriculture



Technical regulations have been adopted to ensure safety of products for human life and health, for the environment and national security, to reduce pressure on businesses and to restrict access of imported products to the market.

The technical regulations serve for consumers as a guarantee of safety of consumed products, and for manufacturers, importers and sellers, as documents containing the comprehensive government requirements for ensuring safety of the consumers.

As of today, 19 RK Technical Regulations in the agribusiness area have been adopted.

Six technical regulations (TR) of the CU in the agribusiness area have been approved and it is necessary to develop an additional six CU TR for advancing and accelerating integration processes in the CU and shaping the Common Economic Space.

The CU Technical Regulations will have a direct effect at the customs territory and establish common requirements for the three countries.

To fulfill the TR requirements, the unified lists of standards of the Common Economic Space have been compiled for all types of agribusiness products that are harmonized with the international or European standards and that in the future will be revised and turned into interstate standards. Also, there is a need to fit testing facilities of the RK veterinary laboratories with equipment and supplemental materials required for the identification of agribusiness products.

Table 31. Target indicator for the development of the technical regulation system in agriculture

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
1	Percentage of coverage of agribusiness products by the CU technical regulation system, %	58.3	75	83.3	91.7	100	-	-	-

#### 4.4.6. Improvement of efficiency of the state control and surveillance system in agribusiness

To implement the assignments of the Head of State on improvement of efficiency of the state control and surveillance system and also alleviation of the administrative pressure upon the entrepreneurs regarding systematization of planning of inspections and reduction of their number from the state agribusiness bodies of the RK Ministry of Agriculture structures it has planned to:

improve efficiency of the preventive measures:

1. improvement of efficiency of the preventive measures means shifting stress of the control and surveillance system from imposing administrative penalties upon revealing violations to the issue of directions.

2. use of the directions enables the entities covered by control and surveillance to eliminate violations in due time established by the direction, and, accordingly, to avoid administrative penalties.

Table 32. Target indicators for improvement of efficiency of the preventive measures

#	Indicator	Years of implementation
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		2013	2014	2015	2016	2017	2018	2019	2020
1	Percentage of the fulfilled directions issued for the violations of the RK legislation for plant growing and phytosanitary safety	85	87	88	89	90	91	92	95
2	Percent of the fulfilled directions issued for the violations of the RK legislation for plant growing and phytosanitary safety	86	88	89	90	91	92	93	96

automate the process of including the entities for control and supervision in the plan of inspections taking into account the risk management system

Today, the plan of inspection is made taking into account the risk management system, i.e. the inspection criteria are defined, the entities for control and supervision are distributed in the groups of risks, and frequency of inspections is determined for each group of risk. However, today there is a probability of biased approach to development of the plans of inspections. To minimize biased approach to formation of the plans, it is suggested that the process of inclusion of the entities for control and supervision in the plan of inspections should be automated taking into account the risk management system.

Table 33. Target indicators for automation of the process of inclusion of the entities covered by control and supervision in the plan of inspections taking into account the risk management system

#	Indicator	Years of implementation							
		2013	2014	2015	2016	2017	2018	2019	2020
1	Percentage of coverage of the entities included in the plans of inspections for plant growing and phytosanitary safety using the information system, %			50	60	70	80	90	100
2	Percentage of coverage of the entities included in the plans of inspections for veterinary area using the information system, %			50	70	80	90	100	100

#### 4.4.7. Creation of conditions for the development of production and curculation of organic agricultural produce

To develop production and curculation of organic agricultural produce in the RK and to exploit its export potential, it is necessary to set up conditions for a functionable system of production and certification of organic products.

The top priority step is to develop regulatory legal acts defining legal, economic and organizational grounds for the manufacture and marketing of organic products.

It is necessary to launch a control system at all stages of making organic products in order to achieve consumer confidence in the products and materials labeled as organic ones; procedures of production inspection and certification; processing of organic products; and, registration of the manufacturing entities.

State support instruments for manufacturing organic products should be developed.

### **Stages of the Program Implementation**

The Program on agribusiness development for 2013 – 2020 will be implemented in two stages.

#### 5.1. Stage 1: 2013 – 2015

During the first stage, it is necessary to build a strong foundation for the agribusiness development:

1. to establish a legislative framework for achieving the goals, solving the tasks and implementing the measures envisaged in the Program;
2. to take actions for financial rehabilitation of the agribusiness entities through the restructuring, re-financing and funding of the agribusiness entities for the repayment of the current debts with the extension of repayment periods and the reduction of commission rates;
3. to improve economic availability of the goods, operations and services in crops growing and livestock farming sectors, as well as for making products by advanced processing of the agricultural produce;
4. to make transition from the extensive methods of achieving increment in gross output in agriculture to the intensive methods;
5. to improve the insurance system in the crops growing sector;
6. to ensure economic availability of financial services based on the use of a broad spectrum of supporting instruments and to create a favorable environment for investments;
7. to shape a pool of investment and pilot projects and a pool of advanced agricultural technologies for their implementation in such sectors as crops growing, livestock farming and processing of agricultural products;
8. to optimize the system of technology transfer, adaptation and commercialization in the agricultural science, to expand the network of the knowledge sharing centers;
9. to ensure a high level of veterinary and phytosanitary safety;
10. to increase the efficiency of state-based testing of crop varieties;
11. to alleviate market risks through the development of marketing and sales infrastructure and logistics;
12. to upgrade the transportation and logistics capacities, including the storage systems for agricultural products;
13. to increase efficiency of the agrichemical services for the agriculture;
14. to develop an information support system for the agribusiness entities;
15. to develop a system for providing government services and technical regulation;

16. to increase efficiency of the system of state control and surveillance in the agribusiness;
17. to create conditions for the development of production and circulation of organic agricultural produce.

As a result, the conditions for further development of the sector will be established.

#### 5.2. Stage 2: 2016 – 2020

The accomplishments planned for the second stage are as follows: to increase considerably the output of agricultural products, reduce dependence of the RK on imports of all the key food products, exploit the export potential and to achieve the goals highlighted in the Program.

The results of solving the tasks assigned to the second stage are outlined below:

- 1) increase in labor efficiency in the agriculture through the use of up-to-date agricultural technologies facilitating achievement of the target indicators for the yeild capacity of crops and livestock productivity;
- 2) exploitation of the potential of manufacturing and processing sectors in the RK agribusiness.

#### 5.3. Expected Results

As a result of effective state regulation measures, creation of favorable systemic conditions for the development of the RK agribusiness, upgrading of the supporting infrastructure, doubling the average annual investment in the sector, and growth of efficiency, achievement of the major target indicators of the program is expected:

- 1) increase in the state support of agriculture due to subsidizing of the agribusiness entities by 4.5 times in 2020;
- 2) a 300 bln tenge debt restructuring of the agribusiness entities as a measure of financial rehabilitation for not less than 8 years;
- 3) non-state loans issued to the agribusiness due to improvement of the loans and leasing availability up to 2 bln tenge in 2013 – 2020;
- 4) coefficient of threat of distribution of quarantine and highly dangerous pathogens in 2020: 0.88;
- 5) percent of the food products subject to the monitoring laboratory tests in 2020: 0.4 %
- 6) percent of the government services transferred in an electronic format in 2015: 62%.

## 6. Necessary Resources

The total expenditures required for implementing the Program for the Development of Agribusiness in 2013 – 2020 will be as follows:

Table 34. Necessary resources for implementing the Program for the Development of Agribusiness in 2013 – 2020, thousand tenge

Years	Budgetary funding, total			At the expense of bonded loans:	At the expense of JSC “FCC” own funds	At the expense of JSC NUKh KazAgro own funds	TOTAL
	At the expense of RB:	At the expense of LB:	Total				
			(RB and LB)				
2013	156 295 487	28 266 609	184 562 096	150 000 000	2 155 000	3 000 000	339 717 096
2014	282 765 241	28 205 879	310 971 120	150 000 000		5 000 000	465 971 120
2015	286 782 518	27 878 622	314 661 140			8 000 000	322 661 140
2016	301 342 632	27 389 139	328 731 771			12 000 000	340 731 771
2017	342 099 458	27 393 139	369 492 597			14 000 000	383 492 597
2018	363 503 877	27 395 139	390 899 016			16 000 000	406 899 016
2019	368 876 171	27 396 139	396 272 310			18 000 000	414 272 310
2020	401 028 243	27 396 639	428 424 882			20 000 000	448 424 882
Total	2 502 693 627	221 321 305	2 724 014 932	300 000 000	2 155 000	96 000 000	3 122 169 932

The amount of financing of the measures envisaged in the Program will be updated during approval of the republican budget (RB) and local budget (LB) for the respective fiscal years, according to the RK legislation.

The necessary amount of total funding for the development of agribusiness by 2020 will be increased by 1.3 times vs. 2013, and the amount of financing from the budget – without bonded loans, own funds of the JSC Food Contract Corporation (FCC) and the JSC NUKh KazAgro, will be increased by 2.3 times and will make 428 bln tenge. Measures for financial rehabilitation of the agribusiness entities will be implemented through the bonded loans and the republican budget with the total amount of 375.6 bln tenge.

Improvement of availability of the goods, operations and services for the agribusiness entities will grow by 2.9 times within the total amount of the Program funding.

Share of the funds allocated to the development of state support of the agribusiness entities and expenses for improvement of efficiency of the state regulation system will be increased by 1.2 times in 2020 vs. 2013.

Table 35. Necessary amount of funding by area, thousand tenge

Area	2013	2020
	Amount of funding, thousand tenge	Amount of funding, thousand tenge
Financial rehabilitation of the agribusiness entities	157,980,000	4,620,000
Improvement of availability of the goods, operations and services for the agribusiness entities	127,865,830	378,476,512
Development of the state support to the agribusiness entities	51,123,538	61,934,883
Improvement of efficiency of the state agribusiness regulation system	2,747,728	3,393,487
Total	339,717,096	448,424,882

Table 36. Necessary amount of the budgetary financing by funding source, thousand tenge

Source	2013		2020	
	Budgetary funding amount, thousand tenge	Share of budgets in the state budget, %	Budgetary funding amount, thousand tenge	Share of budgets in the state budget, %
Republican budget	156,295,487	85	401,028,243	94
Local budget	28,266,609	15	27,396,639	6
Budgetary funding, total	184,562,096	100	428,424,882	100

7. Action Plan on Implementing the Program for Development of Agribusiness in 2013  
– 2020

#	Action	Deliverables	Agency responsible for implementation	Timeframe	Estimated costs, thousand tenge								Total	Funding source
					2013	2014*	2015*	2016	2017	2018	2019	2020		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<b>FINANCIAL REHABILITATION</b>														
4.1	To implement actions for financial rehabilitation of the agribusiness sector	Information on submission to the Ministry of Economy and Budget Planning (MEBP)	Ministry of Agriculture (MA)	Annually, March 10	150,000,000	150,000,000	0	0	0	0	0	0	300,000,000	Bonded loan
	including: food and processing industry facilities				10,000,000	20,000,000	0	0	0	0	0	0	30,000,000	Bonded loan
	To subsidize the interest rate of the loan and leasing liabilities under the financial rehabilitation of the agribusiness entities, given consideration to payment of the services of financial agent	Information on submission to MEBP	MA	Annually, March 10	7,980,000	14,700,000*	13,020,000*	11,340,000	9,660,000	7,980,000	6,300,000	4,620,000	75,600,000	RB
	including: food and processing industry facilities				559,440	1,118,880*	1,118,880*	1,118,880	1,118,880	1,118,880	1,118,880	1,118,880	8,391,600	RB
4.2 Improvement of availability of the goods, operations and services for the agribusiness entities														
4.2.1 Improvement of economic availability of the goods, operations and services in crops growing sector														
4.2.1.1 Improvement of economic availability of the field and garden operations														
4.2.1.1	To subsidize fuels and lubricants required for the spring field and harvesting operations	Information on submission to MA	Regional akimats	Annually, February 15		12,735,096*	12,904,894*	13,094,825	13,001,886	13,118,088	13,151,854	13,098,772	91,105,415	TTC from RB
					18,636,352	18,636,352*	18,636,352*	18,636,352	18,636,352	18,636,352	18,636,352	18,636,352	149,090,816	LB
	To subsidize growing of vegetables in area under glass	Information on submission to MA	Regional akimats	Annually, February 15, beginning	0	2,932,402*	3,181,709*	3,431,016	3,738,494	3,738,494	3,738,494	3,738,494	24,499,103	TTC from RB

#	Action	Deliverables	Agency responsible for implementation	Timeframe	Estimated costs, thousand tenge								Total	Funding source
					2013	2014*	2015*	2016	2017	2018	2019	2020		
				from 2015										
	To subsidize initiation of fruit-and-berry crops and grapes	Information submission to MA	Regional akimats	Annually, February 15	1,429,189	1,429,189*	1,429,189*	1,429,189	1,429,189	1,429,189	1,429,189	1,429,189	11,433,512	LB
					1,072,635	6,620,625*	7,276,716*	7,655,849	7,822,367	8,004,285	8,192,848	8,394,016	55,039,341	TTC from RB
4.2.1.2 Improvement of economic availability of the mineral fertilizers and herbicides														
4.2.1.2	To subsidize costs of procurement of mineral fertilizers	Information submission to MA	Regional akimats	Annually, February 15		9,581,352*	10,512,168*	12,758,669	14,600,062	16,100,006	17,600,066	19,100,025	100,252,348	TTC from RB
					5,400,000	5,400,000*	5,400,000*	5,400,000	5,400,000	5,400,000	5,400,000	5,400,000	43,200	LB
	To subsidize costs of procurement of herbicides	Information submission to MA	Regional akimats	Annually, February 15	1,053,760	1,053,760*	1,053,760*	1,053,760	1,053,760	1,053,760	1,053,760	8,430,080	LB	
					19,644,878	26,506,994*	26,685,818*	26,934,809	27,010,396	27 133 461	27,295,231	27,455,261	208,666,847	TTC from RB
4.2.1.3 Improvement of economic availability of the elite seeds and seedlings of the fruit-and-berry crops and grapes														
4.2.1.3	To subsidize original and elite seeds	Information submission to MEBP	MA	Annually, March 10	2,528,468	2,640,002*	2,801,288*	3,019,888	3,291,432	3,840,039	4,120,004	4,616,233	26,857,354	TTC from RB
4.2.1.4 Improvement of economic availability of the expert assessment of the Kazakhstan lint cotton and raw cotton quality during incoming inspection at the cotton processing facilities														
4.2.1.4	To subsidize costs of the expert assessment of lint cotton and raw cotton quality	Information submission to MA	Regional akimats	Annually, February 15	181,365	181,365*	181,365*	181,365	181,365	181,365	181,365	181,365	1,450,920	LB
						237,787*	231,741*	224,890	224,890	234,562	244,235	244,235	1,642,339	TTC from RB
4.2.1.5 Improvement of economic availability of the expert assessment of the variety and planting characteristics of seeds														
4.2.1.5	To perform expert assessment of the variety and planting characteristics of seeds and planting stock	Information submission to MEBP	MA	Annually, March 10	324,807	353,568*	388,925*	420,039	453,642	489,933	529,128	571,458	3,531,500	RB 214-Development of crop growing sector and food safety



#	Action	Deliverables	Agency responsible for implementation	Timeframe	Estimated costs, thousand tenge										Funding source
					2013	2014*	2015*	2016	2017	2018	2019	2020	Total		
														assurance	
4.2.1.6 Improvement of economic availability of insurance in crops growing sector															
4.2.1.6	To subsidize insurance compensations for insurance in crops growing sector растениеводства	Information submission to MEBP	MA	Annually, March 10	153,652	719,513*	883,160*	974,665	985,414	1,088,912	1,141,023	1,196,055	7,142,394	RB 214-Development of crop growing sector and food safety assurance	
4.2.2 Improvement of physical availability of the grain storage services															
4.2.2	To construct grain terminals and granaries and to expand the existing grain elevators, as well as to build fixed-site granaries for the agricultural commodity producers, e.g. with the JSC NUKh KazAgro participation	Information submission to MEBP	MA	Annually, March 10	2155000	0	0	0	0	0	0	0	2155000	JSC “FCC” own funds	
					0	1,435,000*	0	0	0	0	0	0	14,385,000	RB 043-Increase in authorized capital of the JSC NUKh KazAgro to implement the government policy on the facilitation of agribusiness development	
4.2.3 Improvement of economic availability of water for the agricultural commodity producers															
4.2.3	To subsidize costs of water supply services for the agricultural commodity producers	Information submission to the RK MA	Regional akimats	Annually, February 15	1,565,943	1,505,213*	1,177,956*	688,473	692,473	694,473	695,473	695,973	7,715,977	LB	

#	Action	Deliverables	Agency responsible for implementation	Timeframe	Estimated costs, thousand tenge									Total	Funding source
					2013	2014*	2015*	2016	2017	2018	2019	2020			
	To incorporate amendments in the rules of subsidizing of costs of water supply services for the agricultural commodity producers approved by RK Government Resolution #237 of 04.04.2006 on the motivation of water users for transitioning to the next level of water saving technologies	RK Government Resolution	RK MA	February 01, 2014	0	0	0	0	0	0	0	0	0	Not required	
4.2.4 Improvement of economic availability of the goods, operations and services in livestock farming and commercial fish farming															
4.2.4.1 Improvement of economic availability of the livestock housing and making of livestock products															
4.2.4.1	To subsidize increase in productivity and quality of livestock farming products	Information submission to the RK MA	Regional akimats	Annually, February 15	28,032,871	32,866,277*	36,577,190*	41,085,625	44,904,606	49,730,715	57,421,020	71,009,108	361,627,412	TTC from RB 222-Targeted current transfers to the regional budgets, Astana and Almaty city budgets for the support and development of livestock farming sector	
4.2.4.2 Improvement of economic availability of pedigree products															
4.2.4.2	To subsidize the development of pedigree livestock breeding	Information submission to the RK MA	Regional akimats	Annually, February 15	15,590,610	20,036,308*	26,876,819*	26,602,039	29,564,327	34,224,999	39,256,665	45,658,779	237,810,546	TTC from RB 222-Targeted	

#	Action	Deliverables	Agency responsible for implementation	Timeframe	Estimated costs, thousand tenge								Total	Funding source
					2013	2014*	2015*	2016	2017	2018	2019	2020		
														current transfers to the regional budgets, Astana and Almaty city budgets for the support and development of livestock farming sector
	To provide research and consulting support to the management of pedigree livestock through public associations on breeds and species of the farm animals	Information submission to MEBP	MA	Annually, March 10	105,000	125,000*	150,000*	150,000					530,000	RB
4.2.4.3 improvement of economic availability of the goods, operations and services in commercial fish farming														
4.2.4.3	To develop a draft law envisaging the development of commercial fish farming	IDC conclusion	MA	Quarter IV, 2013	0	0	0	0	0	0	0	0	0	Not required
	To provide guidelines for the development of commercial fish farming sector	Information submission to MEBP	MA	Annually, March 10	101,500	158,000*	0	0	0	0	0	0	259,500	RB 001-Planning, regulation and management in the agricultural area
	To subsidize costs of holding the breeding and	Information submission	Regional akimate	Annually, on February	0	0	0	13,400	70,800	412,800	462,800	798,700	1,758,500	TTC from RB

#	Action	Deliverables	Agency responsible for implementation	Timeframe	Estimated costs, thousand tenge								Total	Funding source
					2013	2014*	2015*	2016	2017	2018	2019	2020		
	replacement stock of valuable fish species	on to MA	s	ry 15, beginning from 2017										
4.2.5 Improvement of economic availability of the goods, operations and services for making products of advanced processing of the agricultural raw materials														
4.2.5	To subsidize costs of the processing facilities paid for the procurement of raw materials (sugar beet) for making white sugar	Information on submission to MA	Regional akimats	Annually, on February 15, beginning from 2015	0	2,033,100*	1,916,700*	1,675,700	1,313,700	826,300	313,600	0	8,079,100	TTC from RB
	To subsidize costs of the processing facilities paid for the procurement of raw materials for making powdered milk, cream butter and cheese	Information on submission to MA	Regional akimats	Annually, on February 15, beginning from 2015	0	9,927,600*	9,412,200*	8,617,700	7,478,400	5,445,800	2,459,800	1,057,000	44,398,500	TTC from RB
4.2.6 Improvement of economic availability of the financial services														
4.2.6.1 Improvement of economic availability of the loans and leasing														
4.2.6.1	To reimburse the fee rates for the leasing and loans issued to the agribusiness entities for increasing fixed and working assets	Information on submission to MEBP	MA	Annually, March 10	6,400,000	21,393,148*	30,347,045*	40,132,488	50,083,025	59,394,698	63,112,330	67,058,694	337,921,428	RB 214-Development of crop growing sector and food safety assurance 213-Development of processing facilities
	including: food and processing industry				3,400,000	4,017,462*	4,017,462*	4,820,955	5,785,146	6,942,175	8,330,610	9,996,732	47,310,542	RB

#	Action	Deliverables	Agency responsible for implementation	Timeframe	Estimated costs, thousand tenge								Total	Funding source
					2013	2014*	2015*	2016	2017	2018	2019	2020		
	facilities													
	Increase in authorized capital of the JSC NUKh KazAgro to implement the government policy on the facilitation of agribusiness development	Information submission to MEBP	MA	Annually, March 10	14,100,000	0	0	0	0	0	0	0	14,100,000	RB 043-Increase in authorized capital of the JSC NUKh KazAgro to implement the government policy on the facilitation of agribusiness development
	To implement measures for funding second-tier banks	Information submission to MEBP	MA	Annually, March 10	3,000,000	5,000,000	8,000,000	12,000,000	14,000,000	16,000,000	18,000,000	20,000,000	96,000,000	JSC NUKh KazAgro own funds
4.2.6.2 Improvement of economic availability of the loans through insurance and guarantee of the loans to the agribusiness entities towards the financial institutions														
4.2.6.2	To develop and approve rules for guarantee and insurance of the loans of the agricultural commodity producers towards the financial institutions	RK Government Resolution	MA	Quarter III, 2013	0	0	0	0	0	0	0	0	0	Not Required
	To implement measures for guarantee and insurance of the loans of the agribusiness entities towards the financial institutions	Information submission to MEBP	MA	Annually, March 10, beginning from 2015	0	7,625,613*	9,931,367*	12,023,392	14,646,589	17,097,099	20,303,843	23,060,777	104,688,680	RB

#	Action	Deliverables	Agency responsible for implementation	Timeframe	Estimated costs, thousand tenge									Funding source			
					2013	2014*	2015*	2016	2017	2018	2019	2020	Total				
	including: food and processing industry facilities				0	2,091,386*	2,509,663*	2,509,663	3,011,592	3,011,592	3,511,580	3,511,580	20,157,056		RB		
4.2.7 Improvement of availability of the goods, operations and services during implementation of the priority investment projects																	
4.2.7	To develop and approve rules for the reimbursement of a part of the costs incurred by the agribusiness entities through making investments aimed at construction of new production facilities or expansion of the functioning facilities	RK Government Resolution	MA	August 01, 2013	0	0	0	0	0	0	0	0	0	Not required			
	To subsidize costs incurred by the agribusiness entities through making investments into the development of priority agribusiness areas				Information submission to MEBP	MA	Annually, March 10, beginning from 2015	0	25,483,943*	29,402,180*	19,233,322	21,036,680	18,898,211	20,789,562	21,764,282	156,608,180	RB
	including: food and processing industry facilities							0	1,551,500*	1,551,500*	1,551,500	1,551,500	1,551,500	1,551,500	1,551,800	10,860,800	RB
4.2.8 Improvement of economic availability of the educational services, results of agricultural science and consulting services																	
4.2.8	To provide scientific support to agribusiness, including:	Information submission to MEBP	MA	Annually, March 10	5,640,577	10,162,942*	9,926,661*	10,002,309	10,425,748	11,072,816	11,818,093	12,534,195	81,583,341	RB			
	- targeted, program-based								3,457,805	4,794,378*	4,608,472*	4,777,611	5,126,111	5,440,808	5,844,308	6,283,308	40,332,801

#	Action	Deliverables	Agency responsible for implementation	Timeframe	Estimated costs, thousand tenge								Total	Funding source
					2013	2014*	2015*	2016	2017	2018	2019	2020		
														s in the agribusiness area and environmental management
	- grant funding				0	2,000,000*	2,000,000*	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	14,000,000	RB
	- basic funding				2,182,772	3,368,564*	3,318,189*	3,224,698	3,299,637	3,632,008	3,973,785	4,250,887	27,250,540	130-Basic funding of the research and/or scientific and technical entities
	To develop the knowledge distribution system	Information submission to MEBP	MA	Annually, March 10	136,236	504,669*	557,449*	604,089	670,623	679,892	711,000	731,804	4,595,762	RB Planning, regulation and management in the area of agriculture
	To optimize and provide maintenance for the system of agricultural technology transfer and commercialization	Information submission to MEBP	MA	Annually, March 10	0	4,273,100*	4,379,928*	4,489,426	4,601,661	4,716,703	4,834,620	4,955,482	32,250,920	RB
					79,336	157,579*	167,034*	177,056	187,679	198,940	210,876	223,529	1,402,029	RB
	To create integrated research and training institutions (centers) on the base of the International Agricultural Research Center "Shortandy" and the South Kazakhstan	Information submission to MEBP	MA	Annually, March 10	0	286,900*	956,300*	4,785,400	20,040,300	20,040,300	2,193,500	2,133,500	50,436,200	RB





#	Action	Deliverables	Agency responsible for implementation	Timeframe	Estimated costs, thousand tenge									Funding source
					2013	2014*	2015*	2016	2017	2018	2019	2020	Total	
4.3 Development of the state systems of supporting the agribusiness entities														
4.3.1 Development of the phyto-sanitary safety system														
4.3.1	To ensure phyto-sanitary safety	Information submission to MEBP	MA	Annually, March 10	6,184,468	5,923,283*	5,920,187*	6,334,601	6,778,022	7,252,484	7,760,158	8,303,369	54,456,572	PB 215- Assurance of phyto-sanitary safety
	To subsidize costs paid by the agricultural commodity producers for bioagents (entomophages) and biological preparations designed for crops treatment with the aim of plant protection	Information submission to MA	Regional akimats	Annually, February 15, beginning from 2015	0	459,936*	459,936*	615,164	658,210	845,128	904,257	1,128,893	5,071,524	TTC from RB 223-a Targeted current transfers to the regional budgets and Almaty and Astana city budgets for reducing costs paid by the agricultural commodity producers for bioagents (entomophages) and biological preparations for crops treatment with the aim of plant protection

#	Action	Deliverables	Agency responsible for implementation	Timeframe	Estimated costs, thousand tenge								Total	Funding source
					2013	2014*	2015*	2016	2017	2018	2019	2020		
	To fit laboratories and subordinating organizations involved in the area of phytosanitary safety with up-to-date equipment to study plant pests, weeds and diseases	Information on submission to MEBP	MA	Annually, March 10	33,600	127,975*	57,945*	37,800	59,366	59,617	69,405	69,600	515,308	RB 217- Targeted current transfers to the regional budgets and Almaty and Astana city budgets for fitting up the state veterinary organizations
4.3.2 Development of the veterinary safety system														
4.3.2	To perform diagnostic tests for highly dangerous animal infections, using veterinary products whose manufacture is certified according to the international standards	Information on submission to MEBP	MA	Annually, March 10	7,235,488	7,741,972*	8,283,910*	8,863,784	9,484,249	10,148,146	10,858,516	11,618,613	74,234,678	RB 216- Veterinary measures and food safety assurance
	To conduct anti-epizootic actions at the local level	Information on submission to MA	Regional akimats	Annually, February 15	11,150,207	11,930,721*	12,765,872*	13,659,483	14,615,647	15,638,742	16,733,454	17,904,796	1114,398,922	TTC from RB 009- Targeted current transfers to the regional budgets and Almaty and Astana city budgets for

#	Action	Deliverables	Agency responsible for implementation	Timeframe	Estimated costs, thousand tenge								Total	Funding source
					2013	2014*	2015*	2016	2017	2018	2019	2020		
														conducting anti-epizootic actions
	To carry out reference studies in the veterinary area	Information submission to MEBP	MA	Annually, March 10	287,370	307,486*	329,010*	352,041	376,683	403,051	431,265	461,453	2,948,359	RB 216-Veterinary measures and food safety assurance
	To perform procedures for livestock identification	Information submission to MEBP	MA, regional akimats	Annually, March 10, beginning from 2015	0	1,451,030*	1,552,602*	1,661,284	1,777,574	1,902,004	2,035,144	2,177,604	12,557,242	TTC from RB
	To complete construction of veterinary laboratories and animal care and use facilities	Information submission to MEBP	MA	Annually, March 10	5,637,782	893,134*	52,024*	0	0	0	0	0	6,582,940	RB 220-Construction of facilities in the veterinary area
	To provide infrastructure for veterinary laboratories	Information submission to MEBP	MA	Annually, March 10	1,935,700	3,011,090*	0	0	0	0	0	0	4,946,790	RB 201-Capital costs of the state organizations reporting to the RK Ministry of Agriculture
	To ensure timely detection, containment and remediation of hot spots of highly dangerous animal infections	Information submission to MEBP	MA	Annually, March 10	3,258,474	3,486,567*	3,730,627*	3,991,771	4,271,195	4,570,178	4,890,091	5,232,397	33,431,300	RB 216-Veterinary measures and food safety assurance

#	Action	Deliverables	Agency responsible for implementation	Timeframe	Estimated costs, thousand tenge								Total	Funding source
					2013	2014*	2015*	2016	2017	2018	2019	2020		
														ce
	To ensure procurement of veterinary preparations for highly dangerous animal infections, whose manufacture is certified according to the international standards	Information submission to MEBP	MA	Annually, March 10	5,311,780	6,027,901*	6,901,285*	10,511,371	11,454,923	12,256,767	13,114,741	14,032,773	79,611,541	RB 216- Veterinary measures and food safety assurance
	To provide infrastructure for the organizations reporting to the RK MA	Information submission to MEBP	MA	Annually, March 10	418,500	140,125*	103,875*	0	0	0	0	0	662,500	RB 201- Capital costs of the state organizations reporting to the RK Ministry of Agriculture
	To fit veterinary organizations with veterinary units established by the local authorities of executive power and to provide incinerators to settlements	Information submission to MA	Regional akimats	Annually, February 15	9,670,169	6,319,916*	0	0	0	0	0	0	15,990,085	TTC from 217- Targeted current transfers to the regional budgets and Almaty and Astana city budgets for providing infrastructure to the state veterina

#	Action	Deliverables	Agency responsible for implementation	Timeframe	Estimated costs, thousand tenge								Total	Funding source
					2013	2014*	2015*	2016	2017	2018	2019	2020		
														ry organizations
	To optimize the RK veterinary legislation on food safety issues in accordance with the international standards	Information submission to MEBP	MA	Annually, March 10	0	0	0	0	0	0	0	0	0	Not required
	Monitoring of food products for MRLs in animal-origin products	Information submission to MEBP	MA	Annually, March 10, beginning from 2015	0	134,899*	205,166*	302,230	500,726	664,397	838,061	1,005,385	3,650,864	RB
	To develop and submit a proposal on the optimization of remuneration system for the veterinary service staff	Proposals to MEBP	MA	Quarter IV, 2013	0	0	0	0	0	0	0	0	0	Not required
4.4 Improvement of efficiency of the state agribusiness regulation systems														
4.4.1 Improvement of efficiency of the agrochemical service of agriculture														
4.4.1	To provide research and methodological services for determining agrochemical characteristics of soils	Information submission to MEBP	MA	Annually, March 10	573,154	470,400*	408,309*	402,722	422,582	415,024	443,257	478,717	3,614,165	RB 214-Plant growing sector development and food safety assurance
	To conduct agro-meteorological and space monitoring of the agricultural production	Information submission to MEBP	MA	Annually, March 10	48,408	48,408*	48,408*	51,797	55,422	59,302	63,453	67,894	443,092	RB 214-Plant growing sector development and food

#	Action	Deliverables	Agency responsible for implementation	Timeframe	Estimated costs, thousand tenge									Funding source
					2013	2014*	2015*	2016	2017	2018	2019	2020	Total	
														safety assurance
	To carry out state accounting and registration of tractors, trailers, self-powered agricultural, ameliorative and road construction machines and vehicles	Information submission to MEBP	MA	Annually, March 10	6,956	6,956*	6,956*	7,400	8,000	8,500	9,100	9 800	63,668	RB 214-Plant growing sector development and food safety assurance
4.4.2 Development of the information support systems for the agribusiness entities														
4.4.2	To develop a feasibility study "Analysis and Forecasting System for Precision Agriculture"	Information submission to MEBP	MA	Quarter 4, 2013										Not required
4.4.3 Improvement of efficiency of the state crop variety testing														
4.4.3	To provide services for crop variety testing	Information submission to MEBP	MA	Annually, March 10	514,301	3,576,977*	4,569,839*	2,195,146	3,717,253	3,451,944	3,009,611	2,837,076	23,872,147	RB 214-Plant growing sector development and food safety assurance
4.4.4 Development of the system of state services for the agribusiness entities														
4.4.4	To carry out the feasibility study "The development of e-information resources, systems and information-and-communication networks in the common information space in the"	Information submission to MEBP	MA	March 10, 2014	1,604,909	0	0	0	0	0	0	0	1,604,909	RB 200-The development of e-information resources, systems and information-

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#	Action	Deliverables	Agency responsible for implementation	Timeframe	Estimated costs, thousand tenge									Funding source
					2013	2014*	2015*	2016	2017	2018	2019	2020	Total	
	At the expense of JSC NUKh KazAgro own funds				3,000,000	5,000,000	8,000,000	12,000,000	14,000,000	16,000,000	18,000,000	20,000,000	96,000,000	
	TOTAL: at the expense of the budgetary funding (RB and LB), thousand tenge				184,562,096	310,971,120*	314,661,142*	328,731,771	369,492,597	390,899,016	396,272,310	428,424,882	2,724,014,932	

\* the amounts will be updated in accordance with the state budget for a respective fiscal year.

### Abbreviations and Acronyms

RK	Republic of Kazakhstan
RF	Russian Federation
USA	United States of America
EU	European Union
CU	Customs Union
CIS	Commonwealth of Independent States
CA	Central Asia
WTO	World Trade Organization
CES	Common Economic Space
UNO	United Nations Organization
OECD	Organization for Economic Cooperation and Development
FAO	UN Food and Agriculture Organization
RK MA	RK Ministry of Agriculture
MEBP	Ministry of Economy and Budget Planning
RK MF CCC	Customs Control Committee of the RK Ministry of Finance
USDA	US Department of Agriculture
FAS USDA	Foreign Agriculture Service, USDA
INTA	National Institute of Agricultural Technology, Argentina
INRA	National Institute of Agronomic Research, France
“APC”	Agribusiness sector
ACEPAS	“Analytical Center for Economic Policy in Agribusiness Sector,” LLC
GDP	Gross domestic product

RB	Republican Budget
LB	Local budget
R&D	Research and development activities
STB	Second-tier banks
PFH	Private farm holdings
ACP	Agricultural commodity producer
GIS	Geo information system
PSC	Public Service Center
GMP	Good Manufacturing Practice
GLP	Good Laboratory Practice